ELECTRONIC ENVIRONMENTAL REPORTING SYSTEM (E2)

USER'S GUIDE

PREPARED FOR

Commonwealth of Virginia
Department of Environmental Quality

Version: 1.1

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Revision History

Version	Date	Created By	Reviewed By	Description
1.0	5/7/2012	Rebecca Wang /Peter Huang		First Draft of E2 V3.5 User's Guide
1.1	1/31/2013	Peter Huang		Compile comments and changes

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Table of Contents

1 Introduction

The Virginia DEQ Electronic Discharge Monitoring Reporting (e-DMR) System is an internet-based computer application that allows permitted facilities to send Discharge Monitoring Reports (DMRs) electronically to the Virginia Department of Environmental Quality (DEQ). This system is designed to provide an alternative to submitting hand-written or paper-based DMRs that is faster, more efficient, and less burdensome for both the regulated facilities and the Virginia DEQ. As a fully operational electronic reporting system, all of the necessary legal, security, and electronic signature functionalities have been included for this system to serve as a completely paperless reporting system. A ***Facility Participation Package*** is available at the following site: [ENTER DEQ Website LINK]

Virginia DEQ permittees can access the Facility Participation Package on the the DEQ website in order to gain information and apply to participate in the Virginia eDMR system.

1.1 e-DMR System Goals and Benefits

There are a number of beneficial goals that have been considered and which have guided the development of the e-DMR System. Among them are:

- Support online availability of up-to-date DMR reporting requirements and tracking status of submitted DMRs and DMR revisions.
- Improve the accuracy of compliance data by eliminating potential errors that would otherwise be introduced through manual data entry.
- Improve the security of DMR submissions from permitted facilities.
- Reduce the permitted facility's compliance costs by offering a streamlined reporting method using readily available computer tools.
- Save the Virginia DEQ administration and compliance costs by reducing, and better utilizing resources required for managing paper-based DMR reports.
- Improve the overall effectiveness of the Virginia Pollutant Discharge Elimenation System (VPDES) program with faster responses for data analyses, compliance assessment, enforcement support, and decision-making.

1.2 Overview of the e-DMR System

The e-DMR System is a Web-based application accessible to the participating permitted facilities via the Internet. The system will serve as an electronic file cabinet to manage DMR reporting requirements provided by the Virginia DEQ, and to receive/store DMRs and associated data submitted by permitted facilities.

The permitted facility's designated staff access privileges are administrated through the use of a user name and a password. In addition, facility designated staff who certify and submit the eDMRs have a Personal Identification Number (PIN) and must answer security questions. All DMR submissions are verified via PIN and security questions authentication with software security to ensure that the content of the data is original, truthful, legitimate, and unaltered. A complete chain-of-custody of all records will be maintained in the e-DMR server.

The system makes available up-to-date reporting requirements from the Virginia Comprehensive Environmental Data System (CEDS), allowing permitted facilities to submit original or revised DMRs, and allows for the reviewing of previously submitted reports online. DMRs received at the secure eDMR Server are uploaded to the Data Exchange System for use by the Virginia DEQ to support compliance, permitting, and environmental planning programs.

1.3 Minimum System Requirements

Permitted facilities will need to have the ability to access the Department's e-DMR System web site through the Internet. Typically, such access is available either through a dedicated connection through the permitted facility's local area network or through a modem connection to an Internet Service Provider.

In addition to the Internet connection, the permitted facility will need an Internet browsing program. The e-DMR application is verified to work with Microsoft Internet Explorer Version 6.0 or greater, which can be downloaded for free from http://www.microsoft.com/downloads. Facilities may find that other Internet browsers may work but the Department cannot ensure that all of the features of the e-DMR web system will be available.

In summary, the following is needed to use the e-DMR system:

- A computer/laptop
- Internet access
- Microsoft Internet Explorer, version 6.0 or greater

1.4 e-DMR System Description

As with a typical paper-based DMR submission process, the e-DMR electronic submission process is surrounded by a number of procedures which ensure that the information is up-to-date and accurate. The typical e-DMR submission process performed by a permitted facility is provided below:

Step 1: Facility user logs into the e-DMR System via the Internet with User Name and password that were previously provided to the user via system generated emails.

Step 2: Using the **Create a New Report** screen, user selects a working facility, permit number, and reporting period.

Step 3: Facility user previews and prepares e-DMR data file in accordance with reporting requirements using one of three methods.

- Step 3A: Completing the online entry web form and generating a submission file. The file may be saved in the eDMR system for later submission.

- Step 3B: Copying and pasting data from the EXCEL template into the online web form and generating a submission file. The file may be saved in the eDMR system for later submission.
- Step 3C: Downloading an XML template file that includes the facility's reporting requirements and generating their own submission file using the preformatted XML file format.

Step 4: If the facility saves the DMR file locally on a personal computer or laptop in step 3C, the facility can later seclect the DMR file and upload it to the e-DMR Server. Regardless of which method is chosen, submission can be made using the Submission Wizard process.

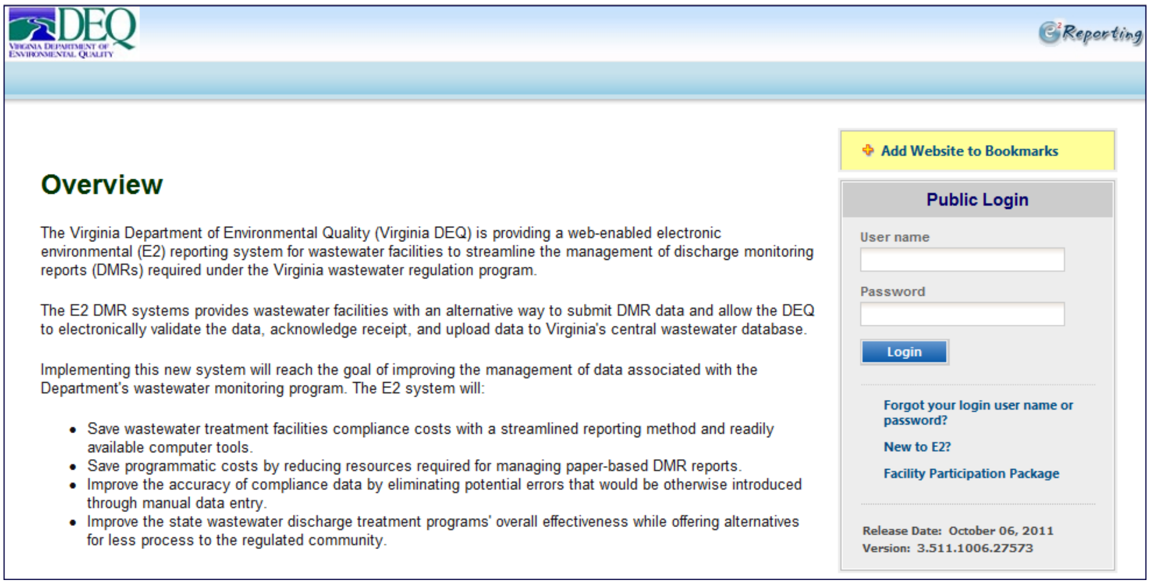
Step 5: The eDMR Server receives the file, and issues a receipt of confirmation on the screenimmediately after the report is submitted. A copy of this receipt of confirmation will be automatically e-mailed to the certifier (submitter). The eDMR Server verifies that the data file conforms to reporting requirements stored in the Server. If it does, the submission is noted as such on the Server for reference. If not, the submission will be noted as 'rejected' and the facility will be notified via email. The facility must resolve the problems and submit revisions to the e-DMR Server. In any case, an email is sent to the certifier stating the status of the submitted DMR.

Step 6: Validated DMR submissions can be viewed and printed at any time.

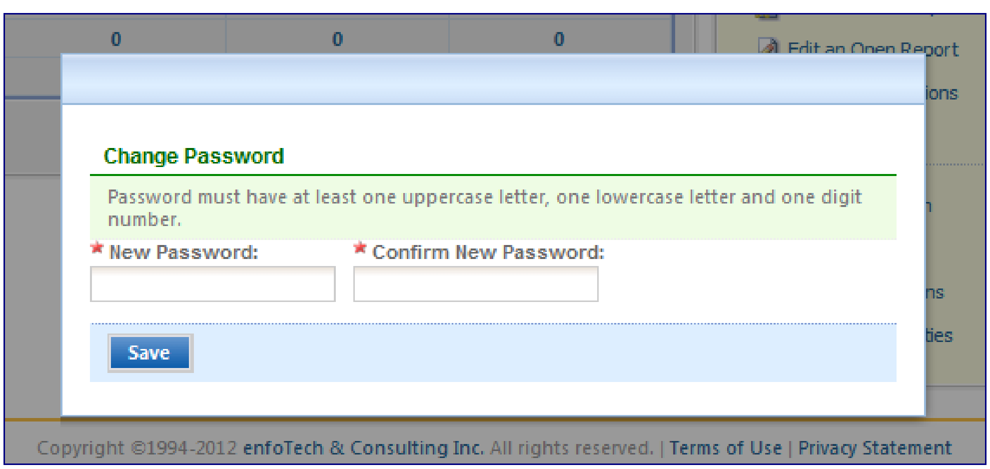
2 Getting Started in eDMR

2.1 Logging in for the First Time

The e-DMR facility participant logs into the e-DMR System website using an Internet connection with Internet Explorer version 6.0 or higher. After entering the website address (xmxmxmxmxm), the participant is greeted by the login screen, which provides a brief description of the E2 system. To enter the system, the facility participant must enter a valid User Name and password on right side of the e-DMR System login screen, as shown below:

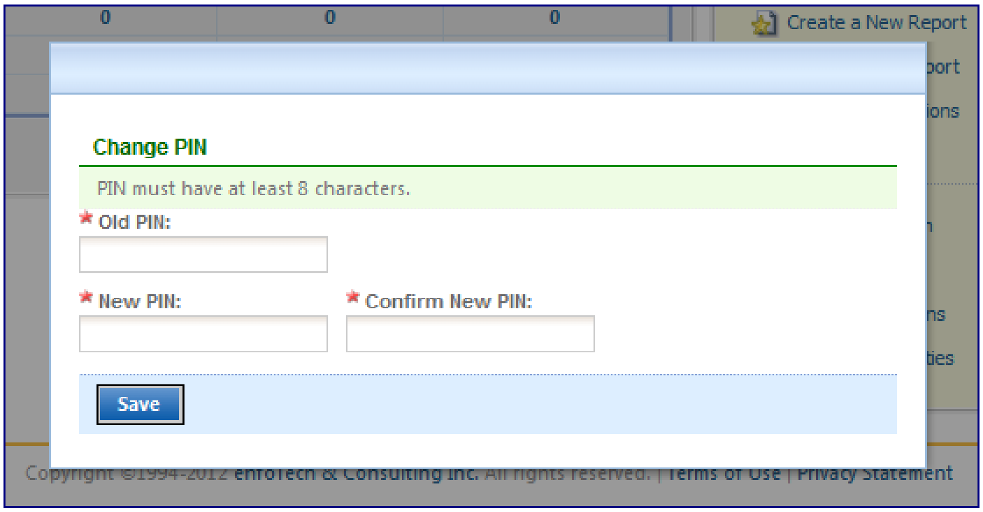


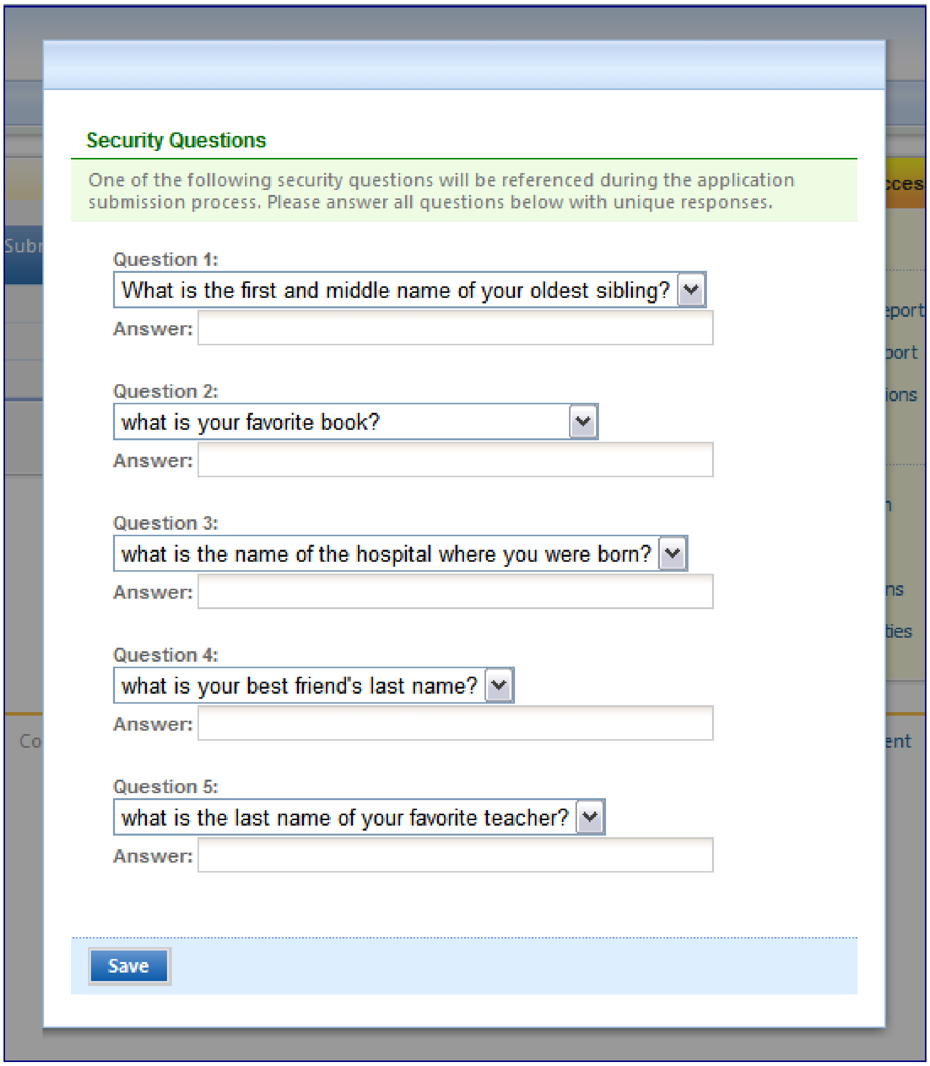
When a user logs in for the first time using his/her User Name and temporary password received from Virginia DEQ, the system will prompt the user to enter a new password as shown below. The new user-defined password must consist of 8-15 alphanumeric characters (i.e. A-Z, a-z, and 0-9).



Note that access to the e-DMR System will only be allowed after the user's password has been changed. If the user fails (e.g., incorrect User Name or Password) to log in after three tries, the system will automatically lock the user account. The user will then have to contact the DEQ Regional Office Adminstrator to re-activate his/her account.

If the user has a "Certifier" role for any permit type at any facility, then he/she must also set a PIN and answers to security questions upon his/her initial login.

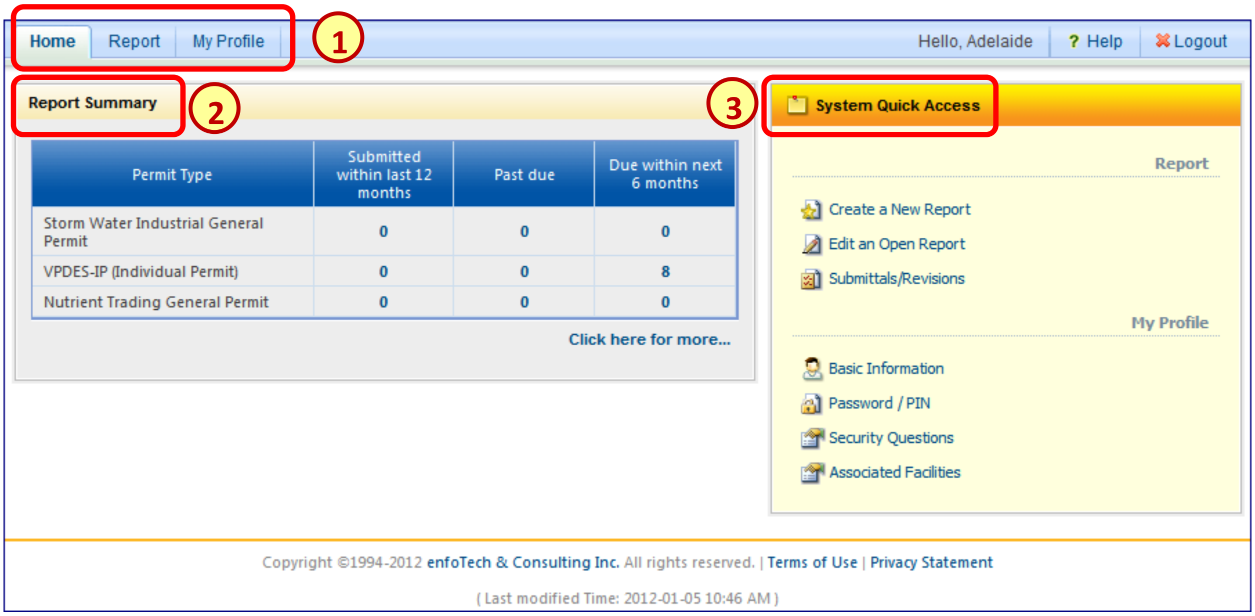




The Certifier can choose among various security questions via the drop-down menus and must provide responses to these. The PIN and security question answers are required when certifying and submitting a report in the E2 system. For further details on resetting password, PIN, and security question information, please refer to Section 4: Profile Management Module.

2.2 Website Navigation

Once a valid User Name and password are entered, the user is brought to the e-DMR home page, which displays three different sections of note: 1. - the menu bar, 2. - the "Report Summary"'*Web Part*', and 3. - the "System Quick Access"'*Web Part*'.



1. The menu bar in the page header offers quick, easy navigation between the two modules available to facility users, "Report" and "My Profile." While the body of the E2 system, including the two '*Web Parts*' (#2 and #3 bullets below), will change as the user moves from page to page, the menu bar remains consistently in place. Using the menu bar, the user can always return to these central areas of the system with just one click, as well as go to the Home page, access the Help document, and Logout.

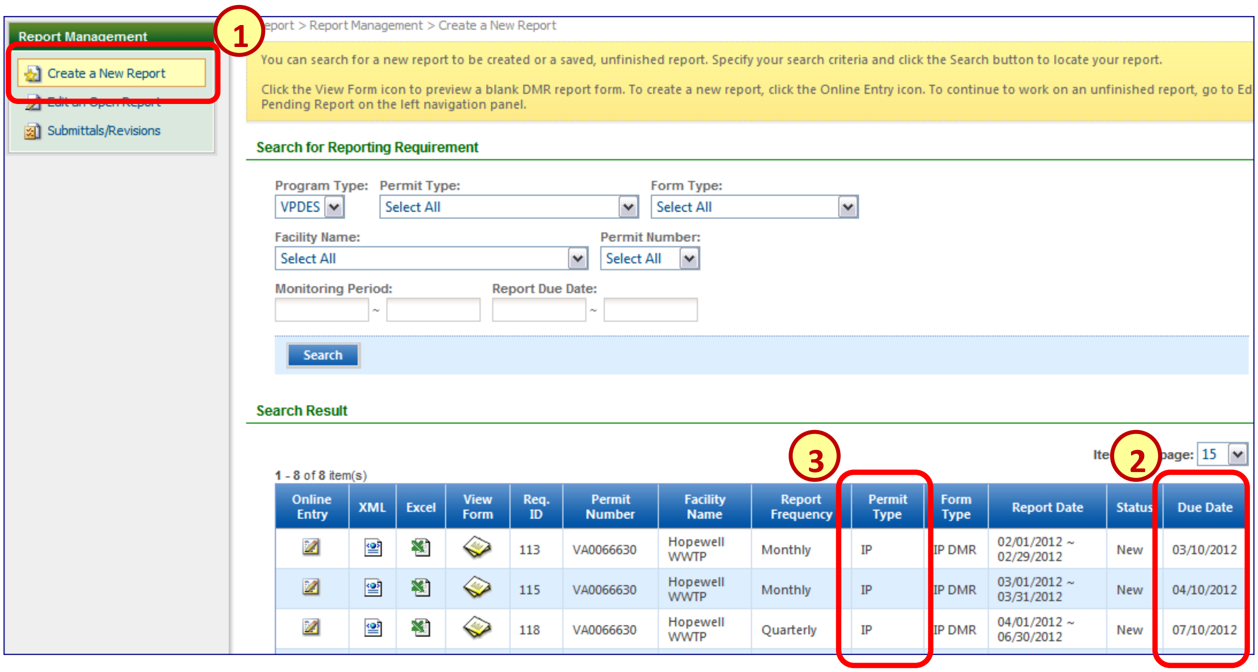
2. The "Report Summary" *Web Part* displays all permit types associated with the user, as well as their submission status. The user can tell at a glance how many reports he/she has submitted within the last twelve months, how many are past due, and how many are due to be submitted within the next six months. For further details on the Report module, please refer to Section 3: Report Management Module.

3. The "System Quick Access" *Web Part* breaks down the "Report" and "My Profile" modules into their respective subcategories, making it more convenient for the user to access various areas of the system directly.

2.2.1 Report Summary

Under the Report Summary *Web Part* from the Home screen, the user may click on any of the hyperlinked numbers in any given column to bring up a gridview that displays records that meet the data query criteria for the number.

For instance, clicking on the value (e.g., number of reports) under "Due within next 6 months" for VPDES –IP (Individual Permits) is a hyperlink which takes the user to the Report Management screen, where a pre-filtered search query has been executed.



1. Since the report is pending and likely has "New" status (i.e. has not yet been created), the hyperlink takes the user to the "Create a New Report" page of the Report Management module.

2. Only reports that have due dates within the next 6 months show up here.

3. Since the hyperlink for the value chosen (e.g., number by report in this example) corresponds to VPDES-IP (Individual Permit), results will only show reports that have a permit type of "IP".

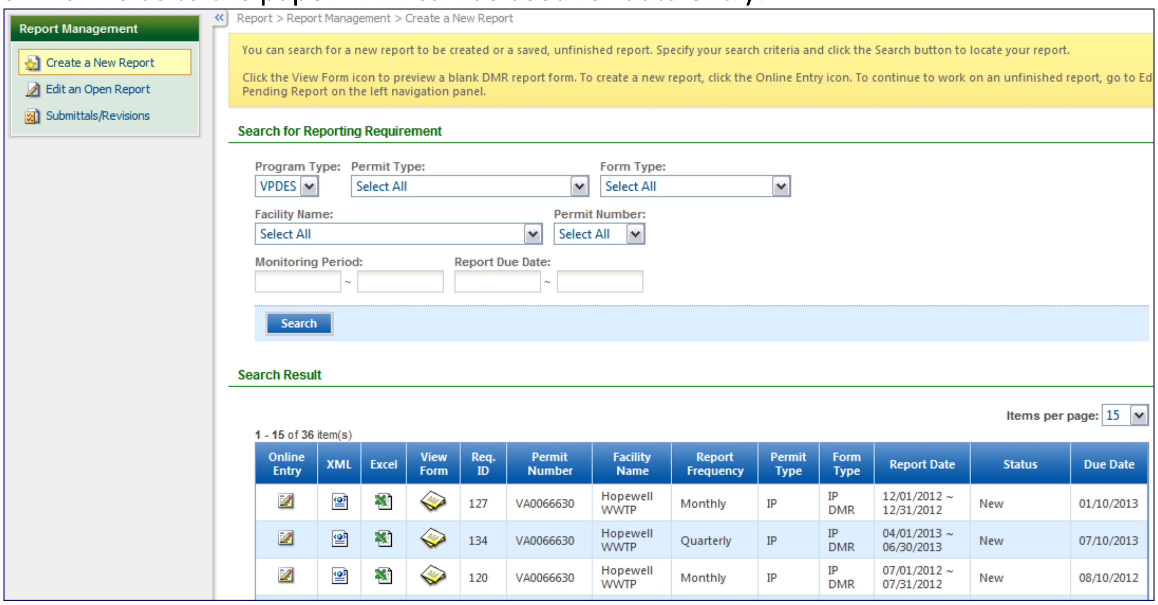
2.2.2 System Quick Access

This *Web Part* is divided into two sections: "Report" and "My Profile," which lead to the Report Management and Profile Management modules, respectively. For further details on each, please refer to Section 3: Report Management Module and Section 4: Profile Management Module.

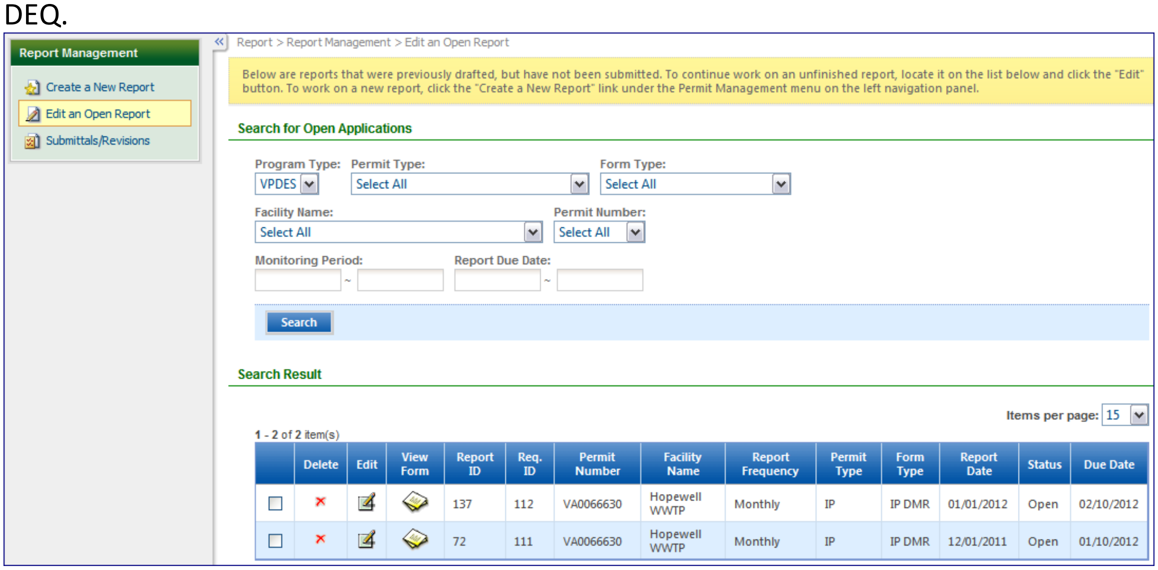
3 Report Management Module

The "Report" module displays three options:

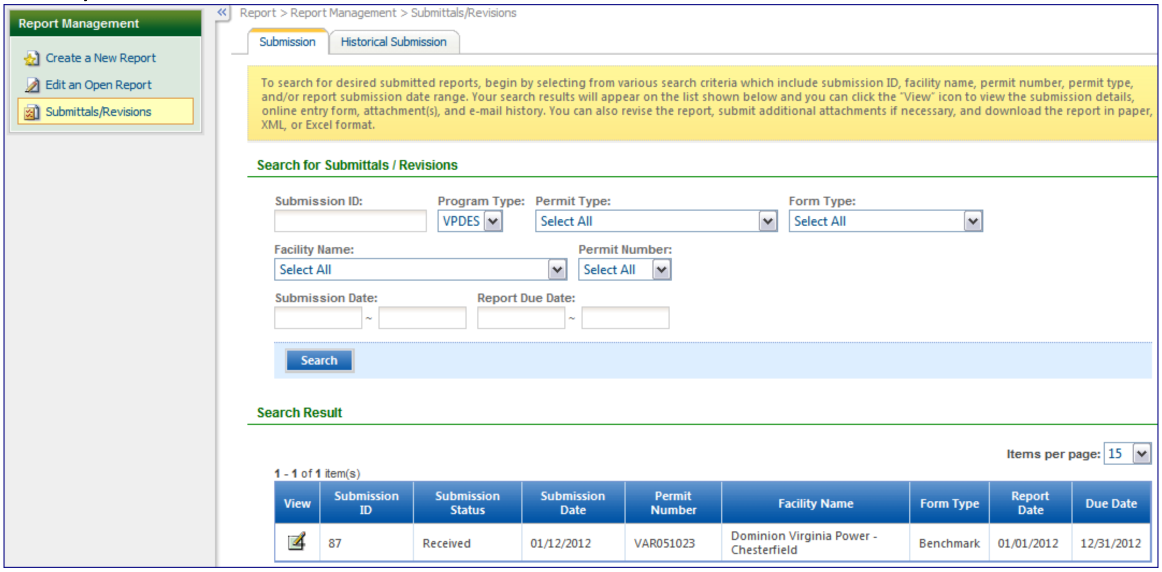
- **Create a New Report**: This leads to the main components of the e-DMR System. Up-to-date reporting requirements can be viewed, printed (for reference), and downloaded here (only for facilities with which the user is associated). Also, web forms that contain similar fields to the paper DMR can be used for data entry.



- **Edit an Open Report**: Here, a user can make changes to or delete a report that is currently in the process of being edited, but has not yet been certified and submitted to DEQ.



- **Submittals/Revisions**: DMR files that have been previously submitted to DEQ can be viewed and downloaded by clicking on Submittals/Revision. Submissions can be viewed and searched for by Submission ID, Permit Type, Form Type (for SWI permit types only), Facility Name, Permit Number, and date.



3.1 DMR Submission Methods

The e-DMR System provides the following three primary methods to allow facilities to submit their DMR reports:

- **Online Data Entry**: An online Report Wizard will guide the user through entering their DMR results online through a series of Web pages.
  This option is ideal for facilities that currently do not use a spreadsheet or database program to store or track their DMR results and can therefore use the e-DMR application to enter their DMR results directly.

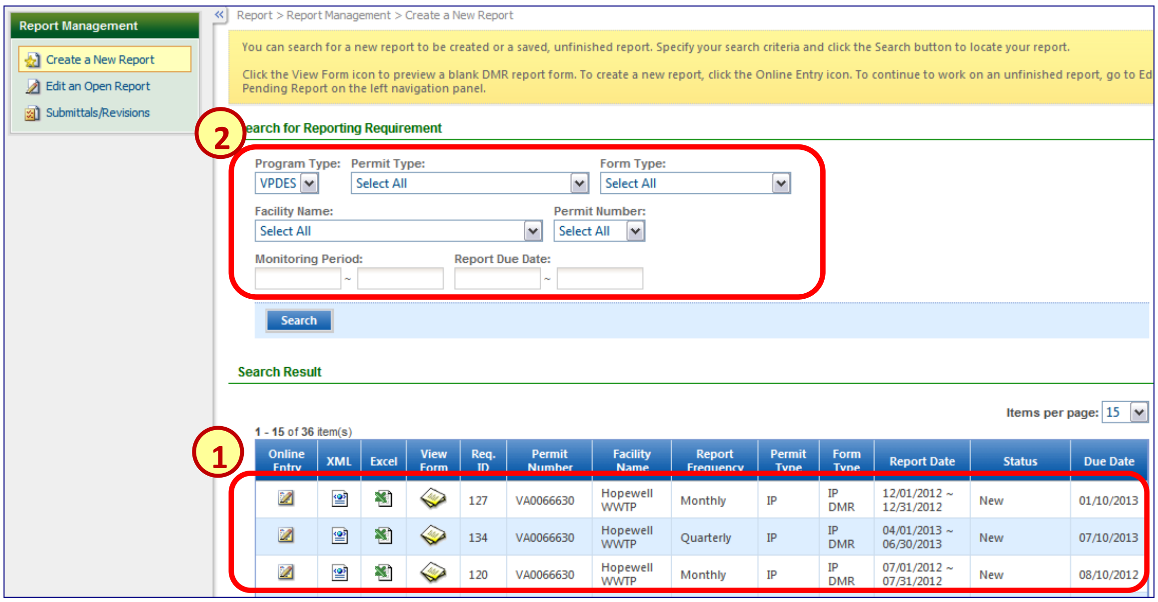
- **XML File Upload**: The user can download a blank XML file from the e-DMR system which contains the parameters that the facility must report. The facility can then use this blank XML template file to enter their DMR results while being disconnected from the Internet. Then, when the user is ready to submit to DEQ, he or she can upload the XML file including DMR results directly to DEQ.
  This option is ideal for facilities that currently have a comprehensive system to track their DMR results and have the IT resources to convert their DMR results into the electronic XML format required by DEQ.

- **Copy and Paste Using Excel Template**: The user can download a blank Excel file from the e-DMR system which contains the parameters that the facility must report. The facility can then use this spreadsheet to enter their DMR results while being disconnected from the Internet. Then, when the user is ready to submit to DEQ, he/she can copy the data from the Excel file and paste this information into the Web form.

This option is ideal for facilities that currently use a spreadsheet program such as Microsoft Excel to store or track their DMR results. Using the Copy and Paste approach allows the facility to avoid needing to "double enter" their DMR results.

3.2 Creating a New VPDES-IP (Individual Permit) Report

To begin filling out a report using any of the three options above, the user will want to first click on the Create a New Report link in the Report Management functional area to the left, which will bring up the Create a New Report screen, as shown below:

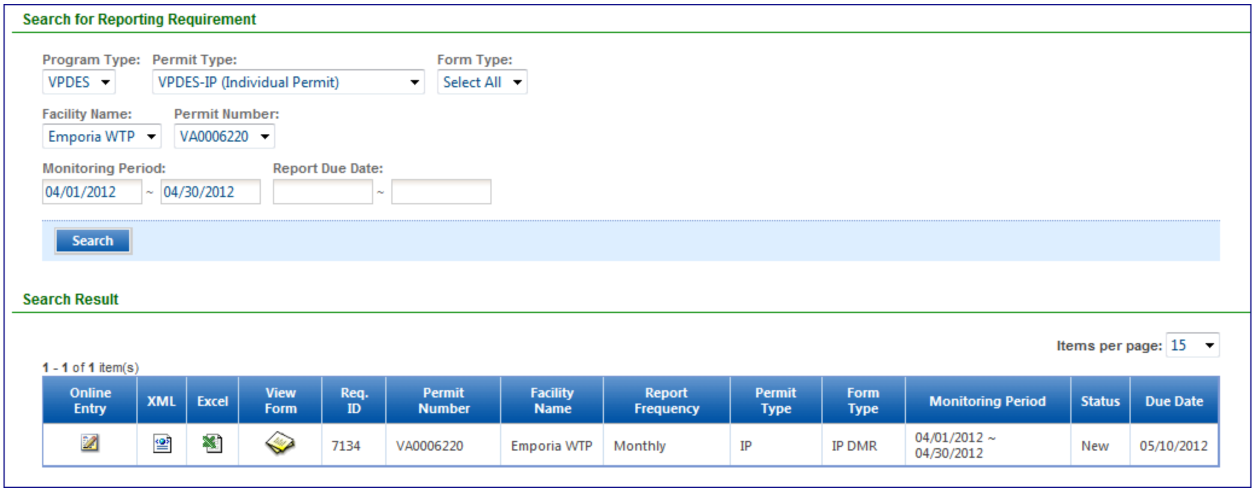


1. By default, this screen will display all DMRs that are due for all facilities at which the user has any kind of role (Certifier/Preparer/Viewer). One row will be displayed for each DMR that must be submitted.

2. To accommodate the possibility that a user may be submitting DMR results for more than one facility, the system allows a user to be associated with multiple facilities.[1] The user can select the registered facility on the drop-down pick list to filter out the DMR reports for that facility. Only those facilities that the user is associated with, whether as a Certifier, Preparer, or Viewer, will be displayed in the drop-down. The user may. also choose to filter the DMRs by Permit Type, Form Type (i.e., SWI GP permit type only), Monitoring Period, Report Due Date, and Permit Number.

After the filtering criteria are entered, the user can click the Search button to filter the results.

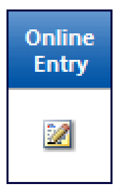
[1] Example: an entity or contractor operating and reporting for multiple individual permitted facilities can have appropriately designated users associated with these multiple individual permitted facilities using their existing User name and password.



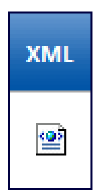
To display all results, simply remove all criteria and click "Search" again.

Each row in the table represents a DMR that must be submitted. In addition to general information about each DMR (such as the Facility Name for which it applies, the Reporting Frequency, andMonitoring Period), four reporting function tasks can be performed for each search result.

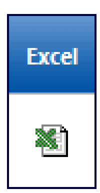
- Enter data through the Online Entry form (used for the online data entry submission method)



- Download a template XML file by clicking on the XML icon (used for the XML file submission method)



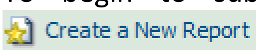
- Download a template Excel file by clicking on the Excel icon (used for the Excel copy-and-paste submission method)



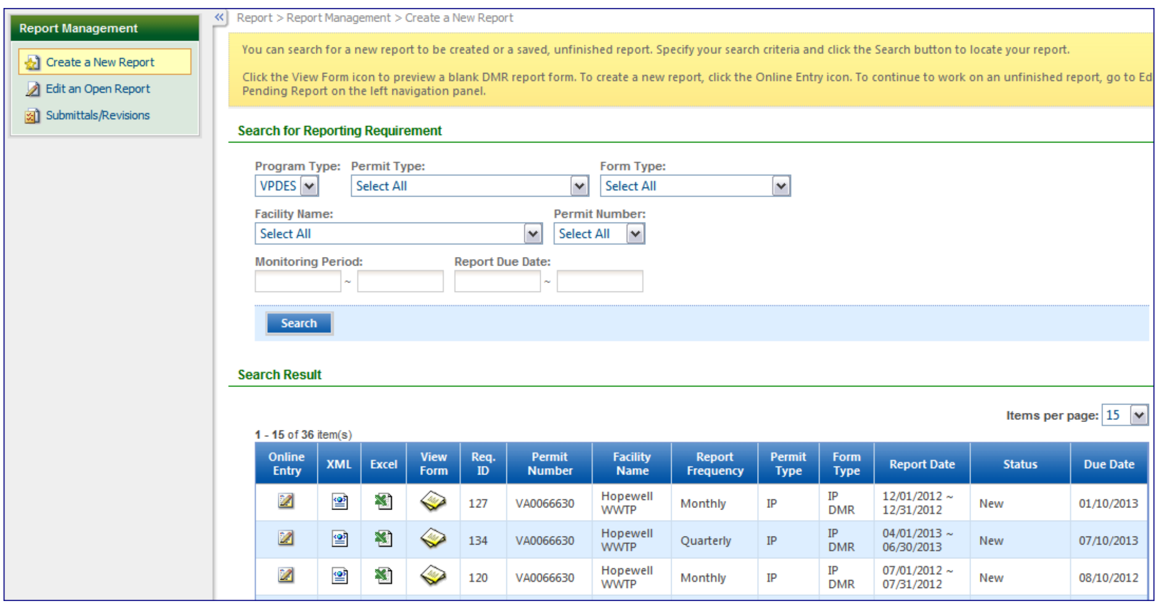
- Preview a reporting requirement by clicking on the View Form icon. This is similar to viewing a blank DMR form that displays the reporting requirements and limits, but it does not yet contain the DMR results.

The following sections describe the procedure to submit DMRs using each of the three available submission options.

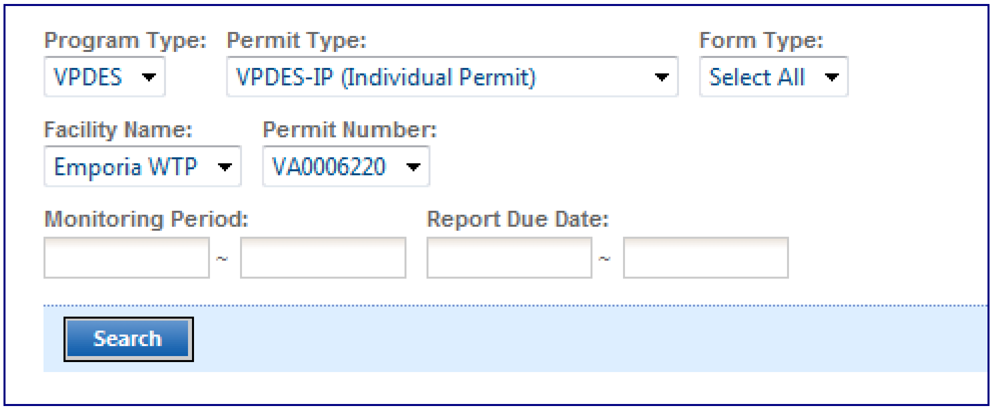
3.2.1 Using the Online Data Entry Feature

To begin to submit a report using the online data entry feature, click on the 

icon in the functional area to the left, which will bring up the Create a New Report screen, as shown here:



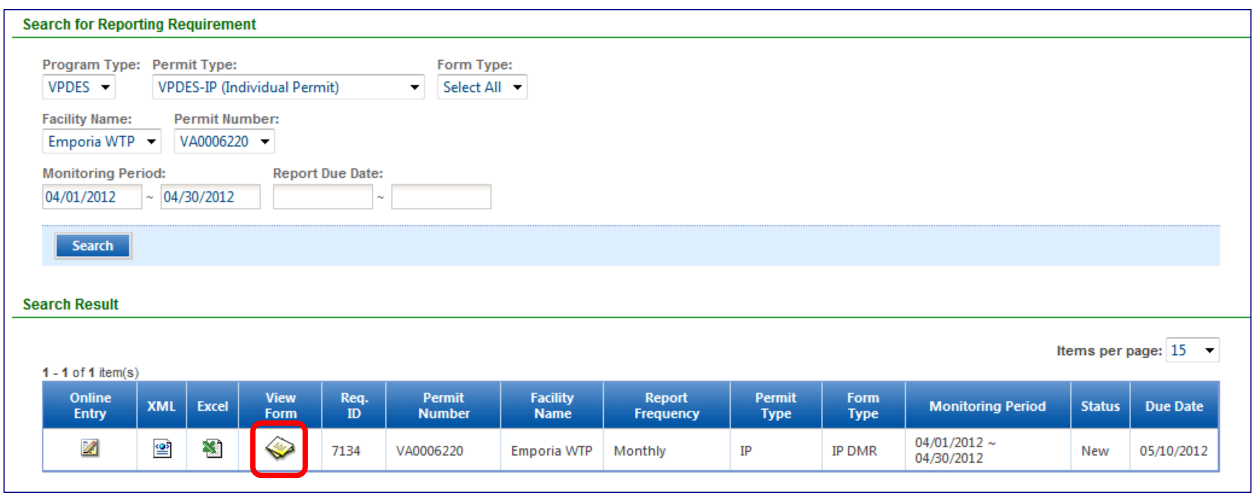
In this case of filling in VPDES-IP reports, to the "Permit Type" drop-down menu should be used to select Permit Type "VPDES-IP (Individual Permit)". If desired, the user can further filter the results by selecting a Facility Name and Permit Number via the drop-down menus.



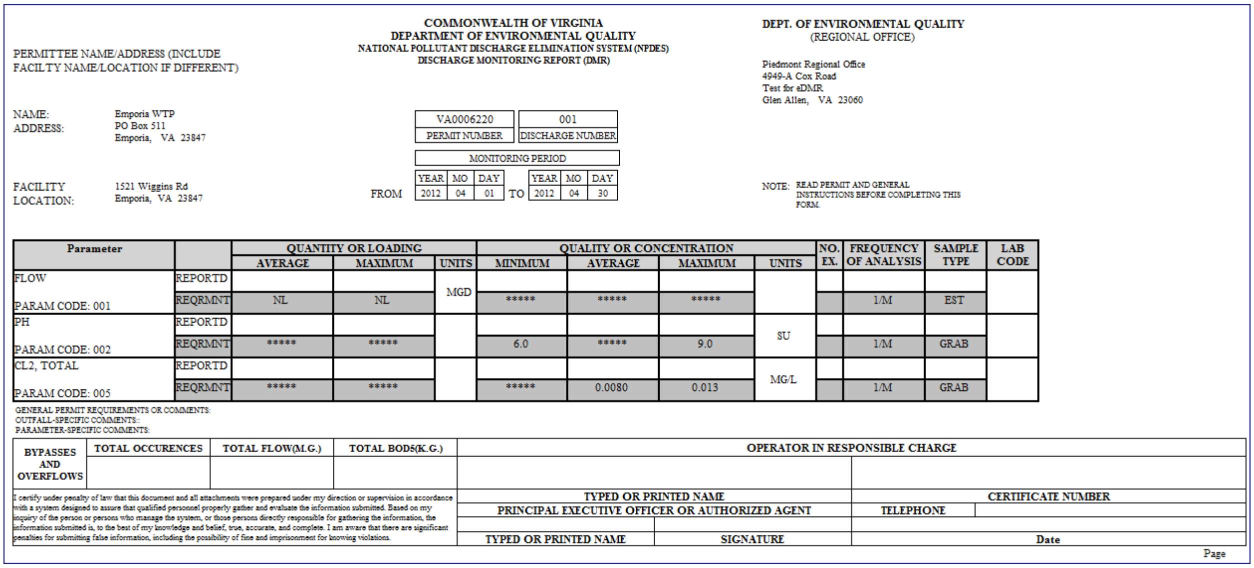
Now that the Facility Name and Permit Number are selected, multiple reporting frequencies may be present for the same facility, such as Monthly, Quarterly, Annually, or Semi-Annually, depending on the reporting requirements for the facility.

3.2.1.1 Viewing Reporting Requirements (Optional)

Before a DMR file (record) is generated, a user may wish to preview and print out the reporting requirements for reference. To preview or print a DMR, click on the View Form icon  for the corresponding record.



This will bring up the following pop-up browser that displays the DMR in a format that is very similar to the paper form:



PERMITTEE NAME/ADDRESS (INCLUDE FACILTY NAME/LOCATION IF DIFFERENT)

NAME: Emporia WTP
ADDRESS: PO Box 511
Emporia, VA 23847

FACILITY LOCATION: 1521 Wiggins Rd
Emporia, VA 23847

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

VA0006220	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2012	04	01	TO	2012	04	30

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Piedmont Regional Office
4949-A Cox Road
Test for eDMR
Glen Allen, VA 23060

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

Parameter		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	LAB CODE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS				
FLOW	REPORTD			MGD								
PARAM CODE: 001	REQRMNT	NL	NL		*****	*****	*****			1/M	EST	
PH	REPORTD							SU				
PARAM CODE: 002	REQRMNT	*****	*****		6.0	*****	9.0			1/M	GRAB	
CL2, TOTAL	REPORTD							MG/L				
PARAM CODE: 005	REQRMNT	*****	*****		*****	0.0080	0.013			1/M	GRAB	

GENERAL PERMIT REQUIREMENTS OR COMMENTS:
OUTFALL-SPECIFIC COMMENTS::
PARAMETER-SPECIFIC COMMENTS:

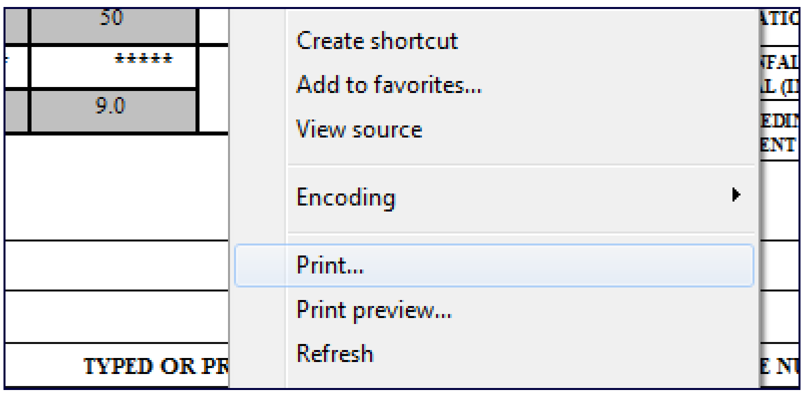
BYPASSES AND OVERFLOWS	TOTAL OCCURENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

TYPED OR PRINTED NAME | CERTIFICATE NUMBER
PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | TELEPHONE
TYPED OR PRINTED NAME | SIGNATURE | Date

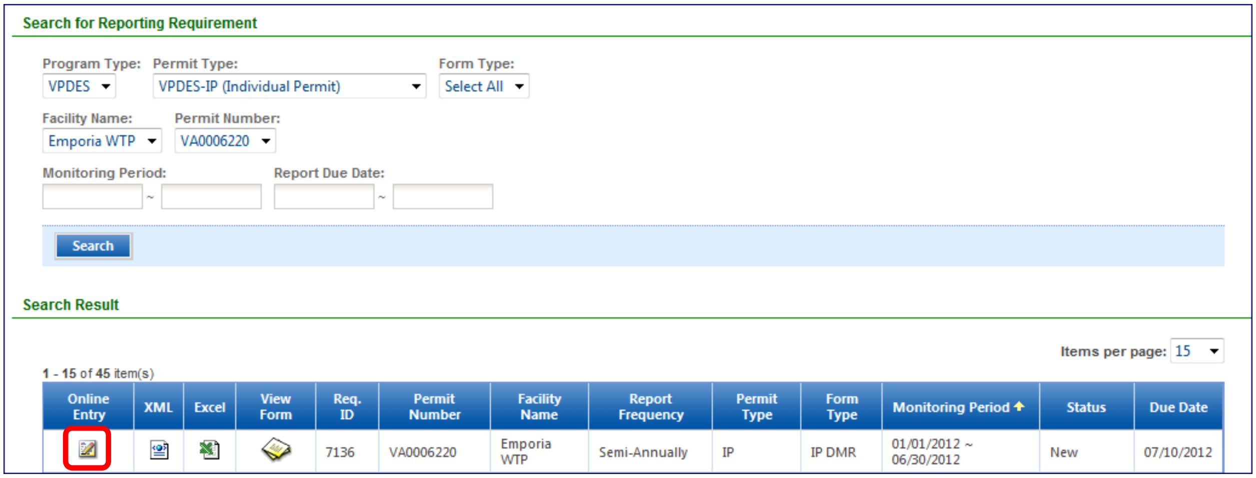
Page

The form at this point is considered a template, since the permit limits and parameters are listed without actual measured values. To print this template, right-click within the pop-up window and select Print, as shown below:

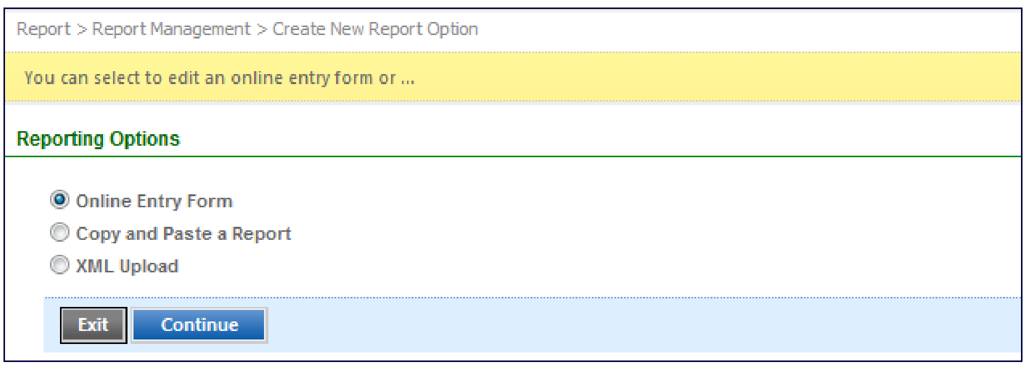


3.2.1.2 Step 1A: Application

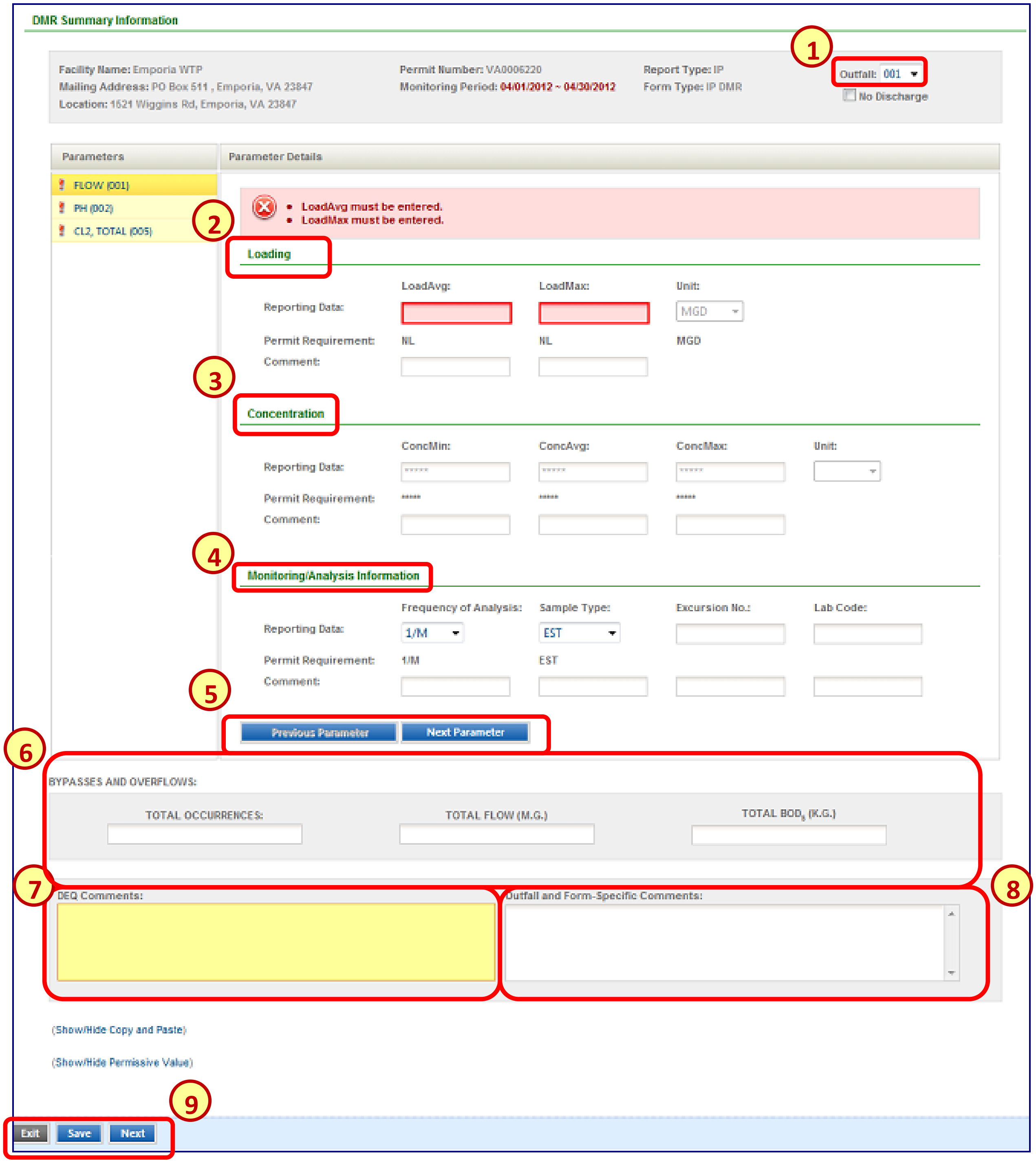
To begin filling out the DMR using the online web form, return to the Create a New Report screen by clicking on the Create a New Report icon in the functional area to the left. Select the desired facility and permit number using the drop-down menus, and click on the Online Entry icon for the corresponding report frequency and monitoring period.



This will initiate the Report Wizard:



Start the report by choosing a reporting option. To proceed to the online entry form, click "Continue," which will bring up the online data entry form.



The On Line Entry form form is pre-populated with the facility and permit information, report identification, parameter list, and permit limit values. Text fields, checkboxes, and drop-down menus indicate to the user those areas that he/she is expected to fill in.

1. **Navigating among outfalls (i.e. monitoring locations):** One facility may be required to submit DMRs for multiple outfalls. In order to fill out the DMR form completely for each outfall, use the Outfall drop-down at the top-right corner of the web form.
2. **Loading section:** Enter the loading average and max in the “Reporting Data” row. Be sure to enter an appropriate data value in accordance with the Units listed. These Units match the permit requirement; additional data conversion may be necessary to translate data from a lab report to match the Units specified in eDMR. The eDMR Units displayed are a protected field that can’t be changed.

Note that to calculate the daily mass loading the following formulae should be used:

- KG/DAY = Concentration (mg/L) x Flow (MGD) x 3.785
- LB/DAY = Concentration (mg/L) x Flow (MGD) x 8.345

where flow is from the same 24-hour period that the sample was collected.

As indicated at the bottom of the page (under the “Show/Hide Permissive Value” link), the “Reporting Data” text fields in the loading section will accept only the following predefined values:

- Numbers
- “X”: No sample results
- “NR”: Not required
- “<QL”: Below quantification level (no space between “<” and “QL”)
- “>”: Greater than (along with a numeric value)
- “<”: Less than (along with a numeric value)

(Show/Hide Permissive Value)

1 - 5 of 5 item(s)

Permissive Value	Description
>	Greater than [insert value] results
<	Less than [insert value] results
NR	Not Required
X	No Sample Results
<QL	Below Quantification Level

Apostrophes (“**’**”), commas (“**,**”), forward-slashes (“**/**”), and underscores (“**_**”) are *not* permitted in the online data entry form. The “>Greater than [insert result]” value and “<Less than [insert result]” value symbols **can be used** to report qualified data.

Note: There are “Comment” sections below each “Permit Requirement” where a parameter-specific comment/explanation can be entered. Any ‘Comment’ entered will be associated with the specific parameter and related DMR data entry. [This is not to be confused with the “Outfall and Form Specific Comments” section mentioned further down in this Users Guide document.]

3. **Concentration section:** Enter the minimum, average (or monthly average), and/or maximum (or weekly average maximum) in the fields in the “Reporting Data” row. Be sure to enter an appropriate data value in accordance with the Units listed; additional data conversion may be necessary to translate data from a lab report to match the Units specified in eDMR. The eDMR Units displayed are a protected field that can’t be changed.

   As indicated at the bottom of the page (under the “Show/Hide Permissive Value” link), the “Reporting Data” text fields in the concentration section will accept only the following predefined values:
   - Numbers
   - “X”: No sample results
   - “NR”: Not required
   - “<QL”: Below quantification level (no space between “<” and “QL”)
   - “>”: Greater than (along with a numeric value)
   - “<”: Less than (along with a numeric value)

(Show/Hide Permissive Value)

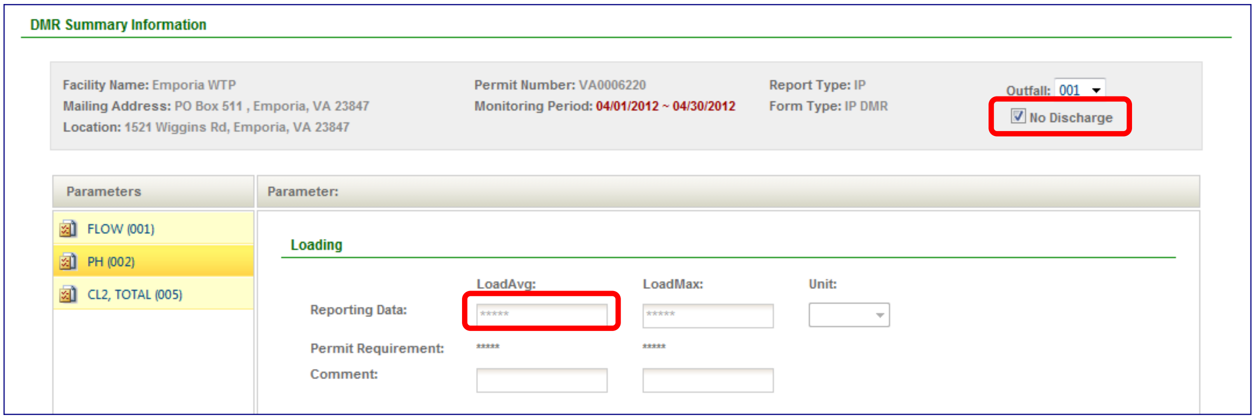
1 - 5 of 5 item(s)

Permissive Value	Description
>	Greater than [insert value] results
<	Less than [insert value] results
NR	Not Required
X	No Sample Results
<QL	Below Quantification Level

Apostrophes (“’”), commas (“**,**”), forward-slashes (“**/**”), and underscores (“**_**”) are *not* permitted in the online data entry form. The “>Greater than [insert result]” value and “<Less than [insert result]” value symbols **can be used** to report qualified data.

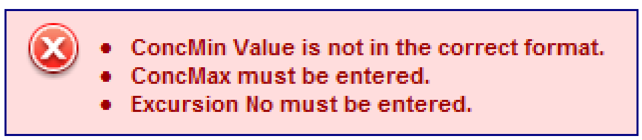
Note: There are “Comment” sections below each “Permit Requirement” where a parameter-specific comment/explanation can be entered. <u>Any ‘Comment’ entered will be associated with the specific parameter and related DMR data entry</u>. [This is not to be confused with the “Outfall and Form Specific Comments” section mentioned further down in this Users Guide document.]

Note: Users may select “No Discharge” at the top right corner of the online entry form, right under “Outfalls”. As soon as “No Discharge” is chosen, all eDMR “Reporting Data” fields for eDMR Permit Requirements will automatically be filled with “*****”.

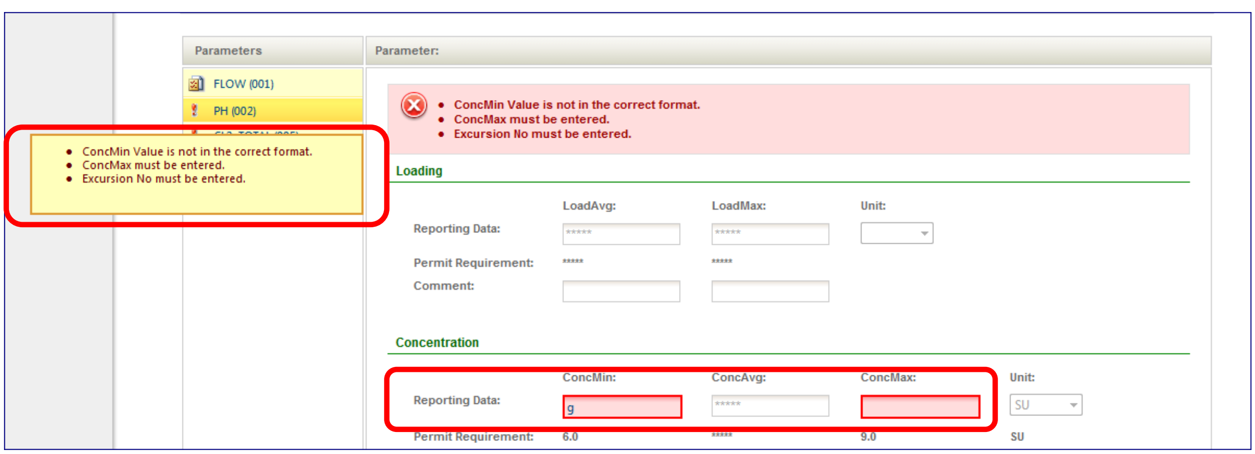


The "No Discharge" selection is unique to each outfall. For example, if it is chosen for outfall 001, outfall 002 and any other permitted outfalls will not be affected.

eDMR offers immediate data entry assistance and validation. Upon opening the form fields are required to be filled are outlined/highlight. An additional validation check (checking for errors or omissions) runs whenever the user switches to a different parameter or outfall on the report.



If any of the required eDMR entry fields are in noncompliance with eDMR data entry format requirements or left blank or do not comply with eDMR data entry format when the user navigates to a different parameter, the icon will appear next to the parameter name in the list to the left. The user can view specific information on the validation issue by letting his/her mouse cursor hover over the icon .



4. **Monitoring/Analysis information:**

- **Frequency of Analysis:** Select from the drop-down list the actual frequency of analysis for each parameter in the "reported" field in the column marked "Frequency of Analysis". If "Other" is selected, specify the actual frequency in the "Comment" field directly underneath. Permittees are required, at a minimum, to sample at the frequency indicated in the permit. If a permittee monitors any pollutant specifically addressed by the permit more frequently than the permit requires, the results of this monitoring shall be included in the calculation and reporting of the data submitted in this form.
- **Sample Type:** Select from the drop-down list the actual type of sample collected in the field marked "Sample Type". Permittees are required, at a minimum, to sample using the sample type indicated in the permit. If "Other" is selected, specify the actual sample type in the "Comment" field directly underneath.
- **Excursion No.:** In the text field marked "Excursion No.", enter the number (integers only) of samples which do not comply with the maximum and/or minimum permit requirements in the "Reporting Data" fields. Do not include monthly average excursions in this column. Include any Maximum 7-Day Average and Maximum Weekly Average violation in this field. Permittees with continuous pH, or temperature monitoring requirements should consult the permit for what constitutes an exceedance and report accordingly. The number of excursions is required to be entered in all cases except when there are no limits for that parameter, or if "NR" is entered.

5. **Navigating among parameters:** The user may either click on the parameter name in the list on the left side of the page, or use the Previous Parameter and Next Parameter buttons. On the final parameter screen, the Next Parameter button is deactivated. Select Previous Parameter or one of the Save, Exit, or Next buttons at the bottom of the screen.

6. **Bypasses and Overflows:** The user must record the number of bypasses and overflows that occurred at the permitted facility during the reporting period, the total flow in million gallons (MG) and BOD5 in kilograms (KG) in the proper columns.

7. **DEQ Comments:** This is a read-only section that displays information input by the DEQ for the user. [Applicable to Storm Water Industrial General Permit only.]

8. **Outfall- and Form-Specific Comments:** Enter specific comments and explanation in the space provided, where applicable. Where noncompliance of permit requirements is reported, provide a brief explanation in accordance with the permit requirements describing the cause(s) of the noncompliance, the duration of the noncompliance, including the date(s) the noncompliance began or occurred, and corrective actions

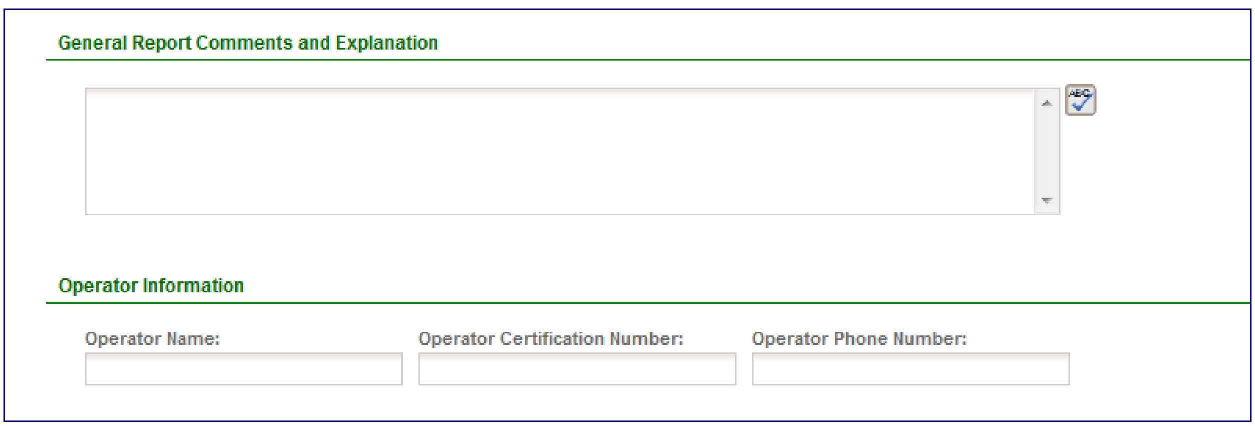
taken and to be taken to address the noncompliance. The foregoing information should be provided for all noncompliance noted in this report.

9. **Exit, Save, or Next**: To leave the DMR form *without saving*, the user may click the button which is located at the bottom-left corner of every web form. To save the values that have been entered for this DMR at any time, click on the button; if the user saves the report, closes the web form window, logs out of the system, and returns later, his/her data will still be available just as he/she left it. (Please refer to Section 3.5: Editing or Deleting an Open Report for more information.) When this page has been appropriately completed, the user may click to proceed to the next step of the report submission process.

   Note: If you leave the DMR entry form without saving your data first, you risk losing any unsaved data that has been entered.

3.2.1.3 Step 1B: General Report Comments and Explanation

After clicking the button at the bottom of the page, a General Report Comments and Explanation page will appear:



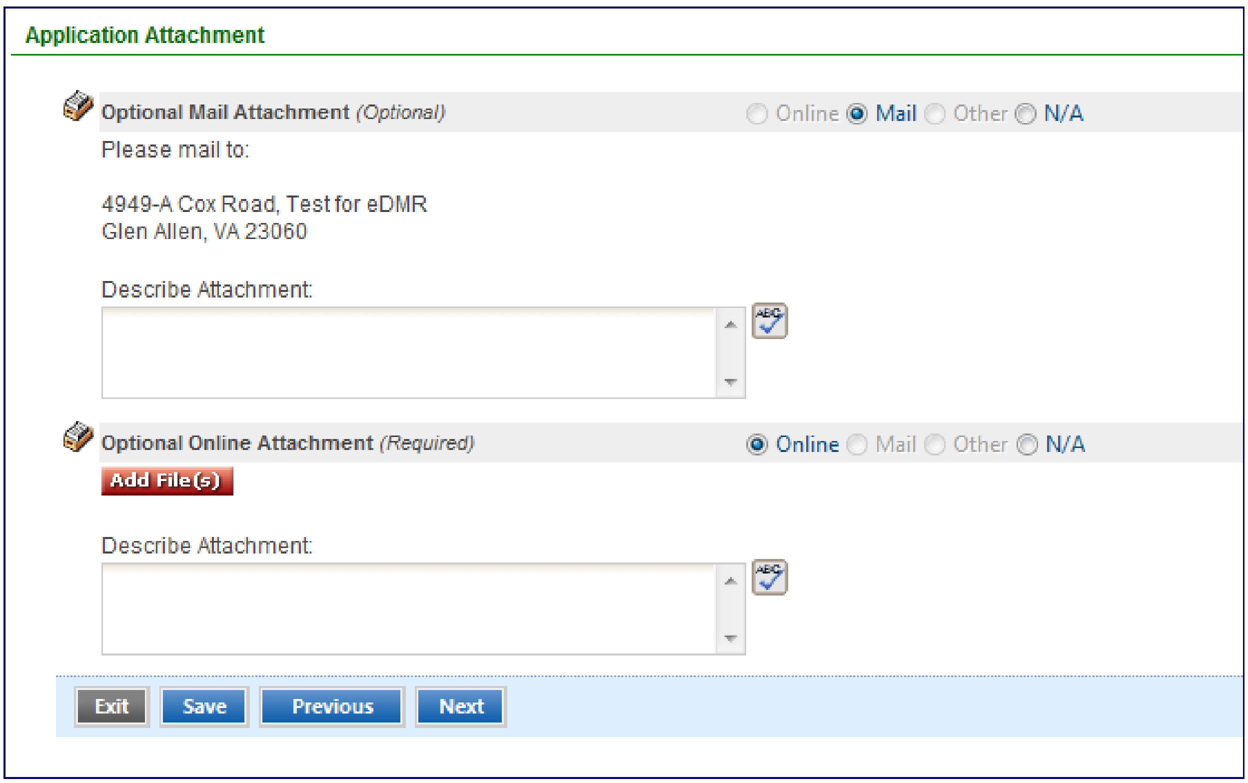
Enter general report comments and explanation in the space provided, where applicable. General report comments may include an explanation for submitting the report late, extenuating circumstances, et cetera. If there is more than one outfall for a facility and a general comment such as "We were unable to obtain a sample at Outfall 002 due to …" is entered, the same general comment will appear regardless of which outfall the viewer is navigating to. To change the general report comment at any time, click within the text box and edit as needed.

The operator in responsible charge of the facility should review the completed form and provide the name in the appropriate space on the form. If the facility is required to have a licensed wastewater treatment operator, the operator certification number shall be reported in the space provided.

3.2.1.4 Step 2: Attachment

After completing the form, the user has the option of submitting supplemental files to the DMR report.

Note: Only attach files which document and/or supplement information associated with the DMR (e.g., Monthly Data Summary and/or Operations Log, Laboratory data and information supporting 'flagged' data, DMR transmittal letter or a Written Report for any noncompliance, etc.). Do NOT attach any files or information which may be required by the permit but is not related to the DMR (e.g., new or revised Operations and Maintenance Manual, annual Groundwater Monitoring Report, notification of permit required Compliance Schedule milestone status report, etc.). Contact the eDMR Regional Administrator for instructions about submitting non DMR reports.



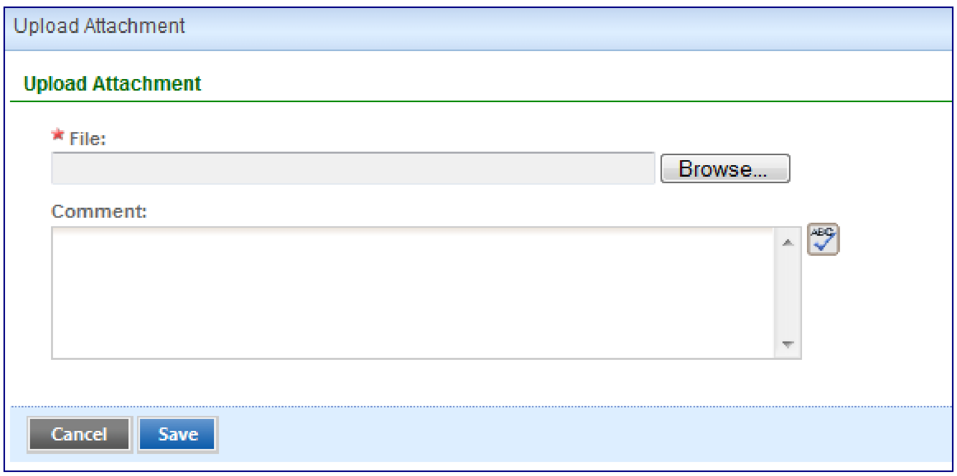
The user has two options for submitting attachments:

- **Mail Attachment:** If the user does not have an electronic copy of the attachment to submit, or if the file is too large, the user can send in the attachments via mail or email. The user can provide a description of the attachments that will be mailed so DEQ will know the nature of the attachments that will be expected via mail. Attachments are to be mailed to the appropriate Regional Office. If users intend to mail in the attachment in hard copy form, they may go to the Submit Attachment(s) by Mail section to find the mailing address.

- **Online Attachment:** The user can browse for and upload electronic files to the e-DMR server. The size of each attachment cannot be any larger than 1.5 MB. Contact eDMR Regional Administrator for alternative for submitting over-sized attachments.

  Note: the maximum field length for the attachment name is 100 characters. Do not include apostrophes (“’”), commas (“,”), forward-slashes (“/”), spaces (“ “), or underscores (“_”) in the attachment names or else they cannot be opened by the DEQ staff for review.

  Click on the resulting "Add File(s)" button and the following window will appear:

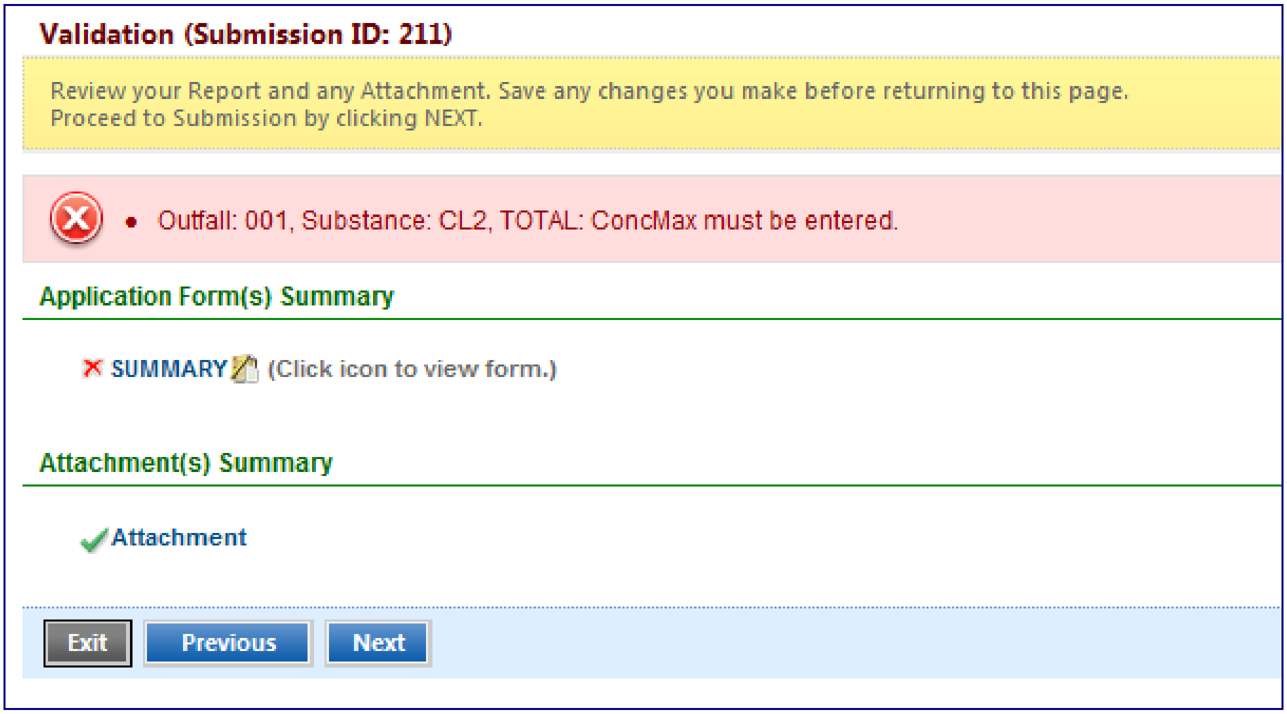


To locate the file to be attached, use the “Browse…” button. Then provide a brief description of the file in the “Comment” section. Only certain file types are allowed to be uploaded. Currently, they are:

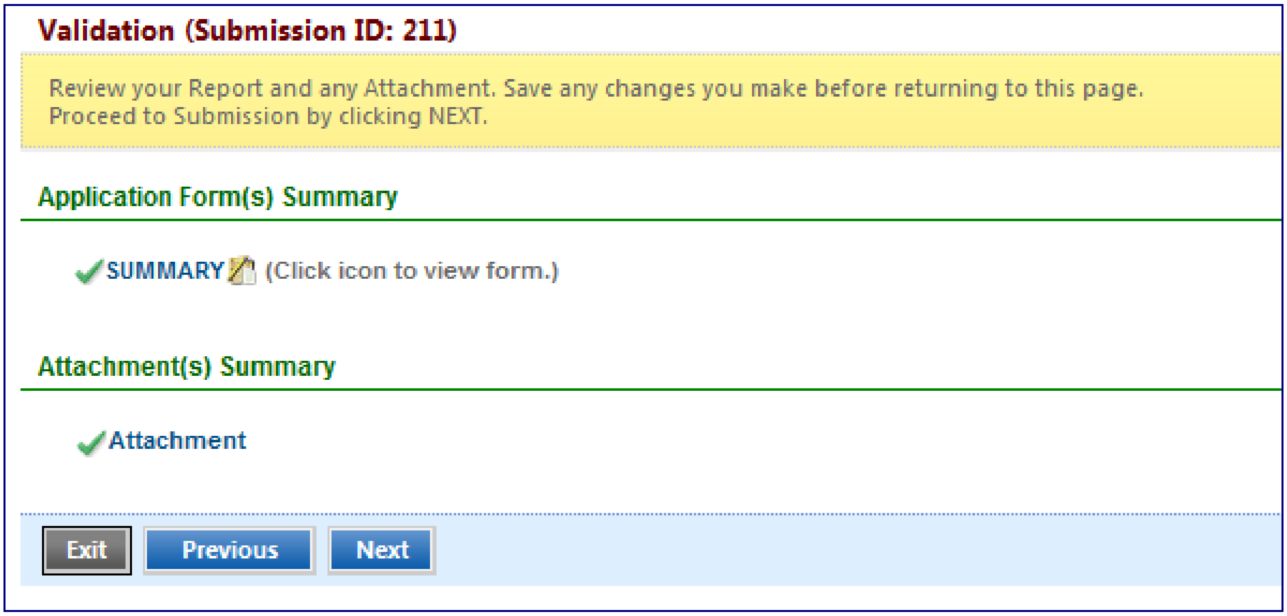
- .pdf
- .txt
- .xml
- .htm
- .zip
- Image - .jpeg, .gif, .jpg, .tif, .tiff, .bmp
- Word - .wpf, .wpd, .doc, .docx
- Excel - .xls, .xlsx
- Access - .mde, .ldb
- Visio - .vsd

3.2.1.5 Step 3: Validation

Once the user clicks the Next button, the system automatically performs a validation check to ensure that all mandatory data entry fields have been properly completed. If any part of the report fails the validation check, then the user may click on the "SUMMARY" link provided to go back to Step 1A: Application. The user may also click on the icon to view a facsimile of the current DMR with current data entered.



If the system deems the report to be properly completed, then the following page is displayed and the user may proceed to the final step.



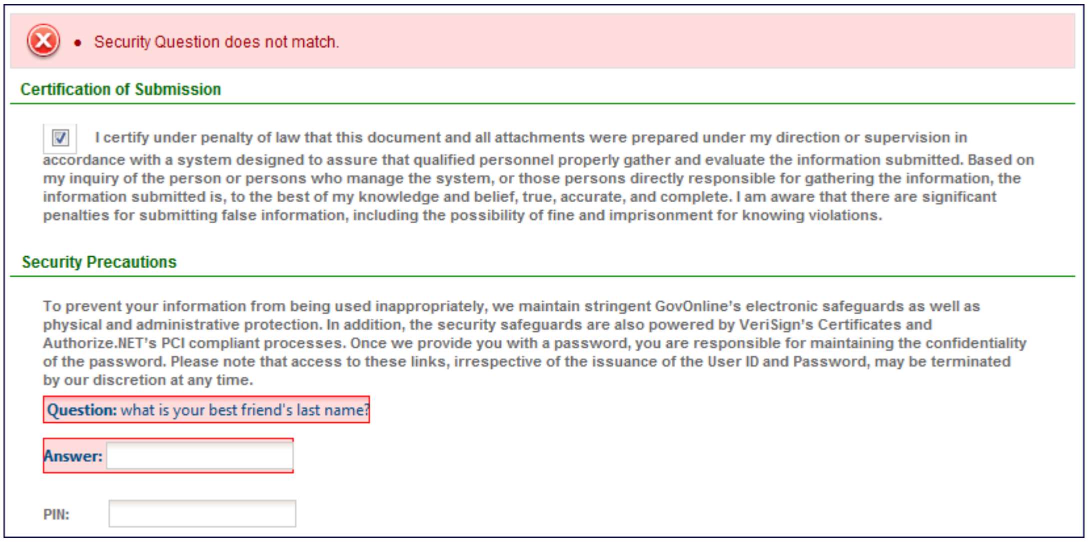
3.2.1.6 Step 4: Submission

At this stage, the DMR Certifier must read the certification statement, click the checkbox indicating that he/she has read and understands the certification statement, answer the security questions set in his/her first login, enter his/her PIN, and click the 

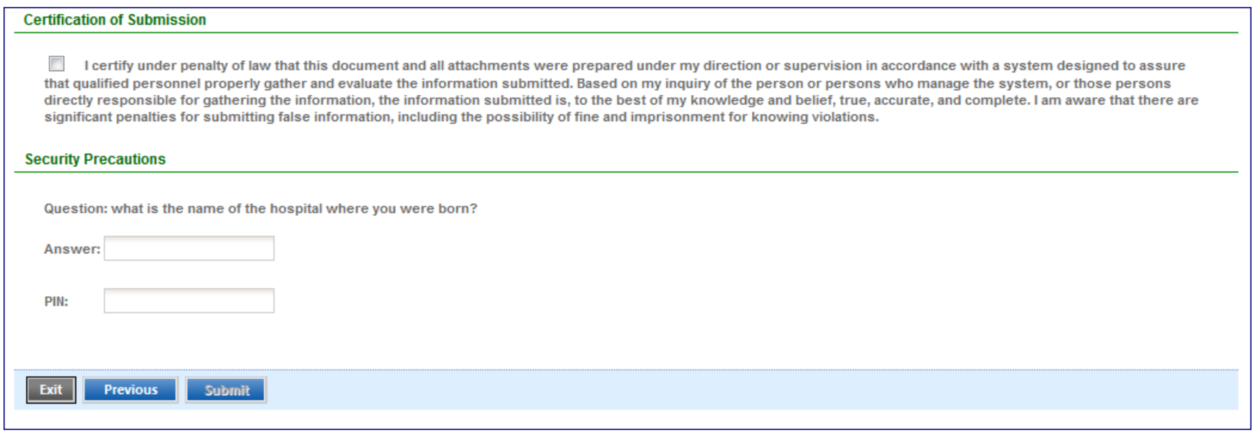
button to submit the results to DEQ.

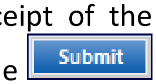
Neglecting to enter the correct PIN, check the Certification of Submission checkbox, or answer the security question correctly will prevent the submission from occurring.

The user has three chances to answer the security questions. If the user provides the wrong answers to the security questions three times (within the same session), the user is no longer allowed to submit the data. When the security questions are suspended, an e-mail will be sent to the user and copied to the DEQ e-DMR Administrator. Once the e-DMR Administrator resets the security questions, the user will be notified via e-mail. The following shows how the system responds when the user provides the wrong answers:

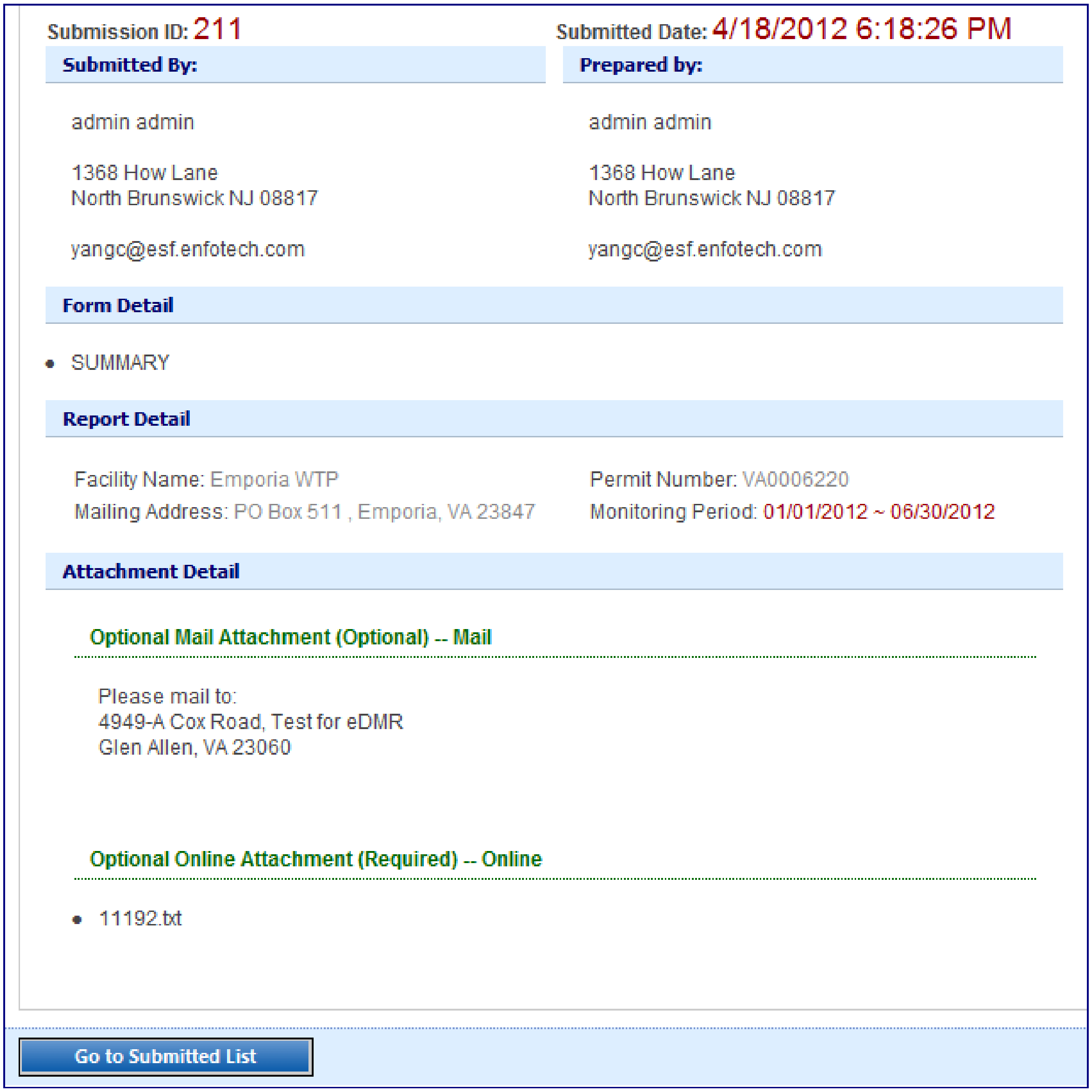


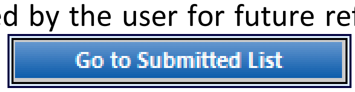
If the security question and PIN have passed validation, the DMR will then be sent to the DEQ and the data will be uploaded directly into the DEQ database.



The user will then be taken to a page that confirms the date and time of receipt of the submission and summarizes the report submitter (name of Certifier who clicked the 

button), the name of Certifier *or* Preparer who originally created the report form, and lists associated attachments.



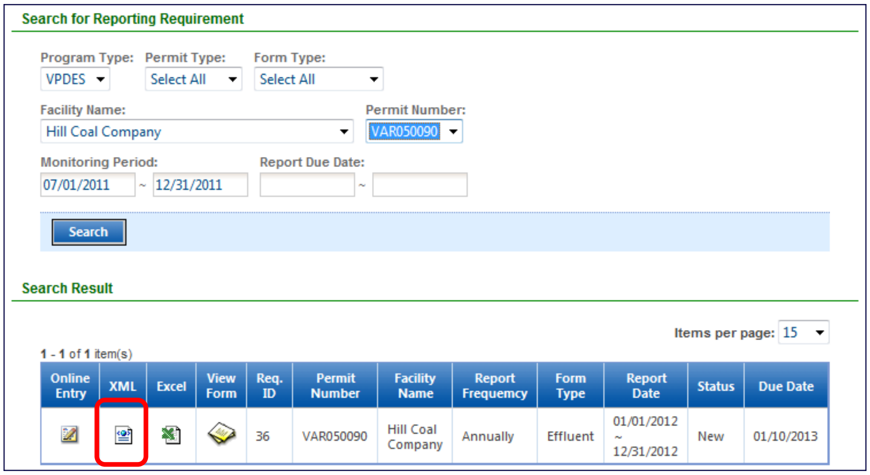
The "Submission ID" is a confirmation number that will be stored in the e-DMR system and should be recorded by the user for future reference. On this page, the user will also have the option of clicking 

to be taken directly to the Submitted Report(s) section of the Report Management module. Submission ID, Submitted Date, DMR date and Attachment information are available for any submitted DMR."

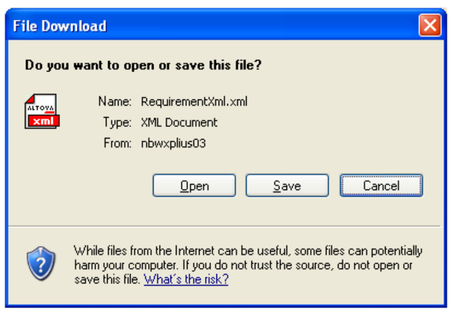
3.2.2 Using the XML File Upload Option

3.2.2.1 Step 1: Downloading and Viewing Reporting Requirements

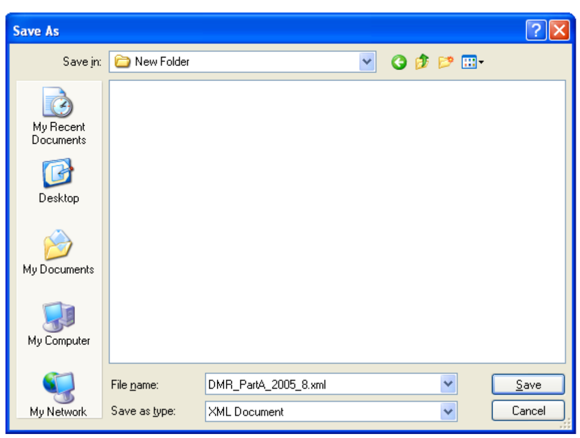
In the previous section, the template, or blank DMR form, was viewed online using the View Form window. If the user is using the XML File Upload submission option, the user can download an XML template of the DMR file by going to the Create a New Report screen and clicking on the XML icon  for the corresponding record:



This will begin a series of message boxes.



To open the file in a new window without saving, click "Open." However, if the user wishes to download the template DMR XML file, he/she should click "Save," at which point the user will be prompted to supply the location to which he/she would like to save the file.



Navigate to the directory where the file is to be saved. Once the file location and name have been selected, click "Save."

The file that is downloaded is an XML file that contains the reporting requirements for the DMR, but does not contain the DMR results.

The readable DMR format displayed in the e-DMR system is created by applying a style sheet to the XML that is being downloaded in this section. This type of style sheet is used to display XML, the language adopted to communicate between environmental facilities and agencies, because it is platform-independent.

Clicking on the XML button or viewing the XML file that is downloaded allows the user to take a peek behind the scenes at the data being displayed.

The following screenshot shows a portion of the XML template file opened using Internet Explorer:

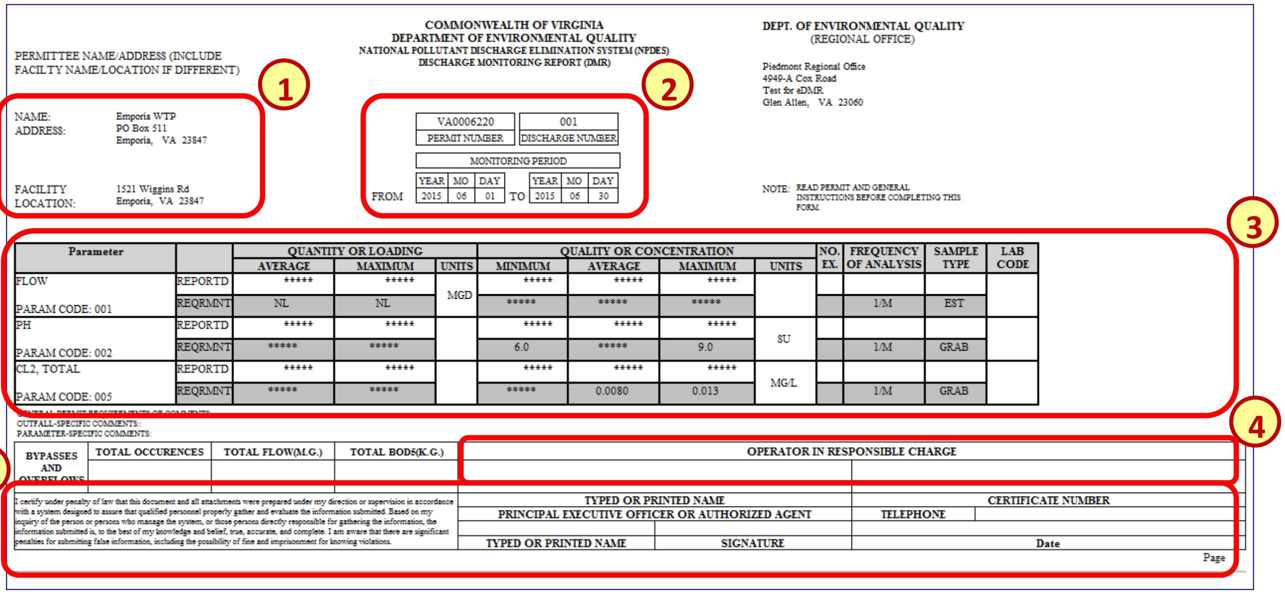

```
  <?xml version="1.0"?>
- <eDMR>
  - <MetaData>
      <SchemaIdentification>e-DMR Schema version 1.4</SchemaIdentification>
      <SchemaDescription>e-DMR Work Group Schema version 1.4</SchemaDescription>
      <SchemaPurpose>Electronic Discharge Monitoring Report submissions</SchemaPurpose>
      <SchemaVersion>1</SchemaVersion>
      <SchemaCreateDate>2002-02-28</SchemaCreateDate>
      <SchemaLastUpdateBy>e-DMR XML Schema Work Group</SchemaLastUpdateBy>
      <SchemaLastUpdateDate>2011-08-30</SchemaLastUpdateDate>
      <SchemaContactInformation>leopard.matthew@epa.gov, and Edmr_support@enfotech.com</SchemaContactInformation>
    </MetaData>
  - <Receiver>
      <AgencyName>State of Virginia Department of Environmental Quality</AgencyName>
      <ReceivercontactName/>
      <ReceivercontactTitle/>
    - <ReceiverMailAddress>
        <MailingAddressText/>
        <SupplementalAddressText/>
        <MailingAddressCityName/>
        <MailingAddressStateUSPSCode>VA</MailingAddressStateUSPSCode>
        <MailingAddressStateName>Virginia</MailingAddressStateName>
        <MailingAddressCountryName>United States</MailingAddressCountryName>
        <MailingAddressZIPCode/>
      </ReceiverMailAddress>
    </Receiver>
  - <Sender>
      <SenderName/>
    - <SenderPhoneFaxEmail>
        <TelephoneNumber/>
```


For a clearer picture of the structure of the XML file and how it relates to the standard DMR format, collapse the following data elements, which are shown in red text above and enveloped by < >, by clicking on the (-): MetaData, Receiver, Sender, FacilityIdentification, ReportIdentification, LocationGroupIdentification, Certification, and MonitoringData.

```
<eDMR>
 <MetaData>
 <Receiver>
 <Sender>
 <Submission submissionID="" submissionFileName="" submissionFileCreatedDate="" submissionComment="">
  <Facility>
   <FacilityIdentification stateFacilitySystemAcronymName="VA e-DMR" stateFacilityIdentifier="200000196224">
   <Report>
    <ReportIdentification>
    <MonitoringLocationGroup monitoringLocationName="001">
     <LocationGroupIdentification monitoringLocationName="001">
     <MonitoringData>
      <ParameterIdentification>
      <Laboratory>
      <SummaryofMonitoringResult>
      <SummaryofMonitoringResult>
      <SummaryofMonitoringResult>
      <SummaryofMonitoringResult>
      <SummaryofMonitoringResult>
     </MonitoringData>
     <MonitoringData>
     <MonitoringData>
    </MonitoringLocationGroup>
    <OperationalData>
   </Report>
  </Facility>
  <Certification>
  <Attachments>
 </Submission>
</eDMR>
```

Now that the structure is well defined, the form can be examined piece-by-piece to see exactly where the data presented using the style sheet is, in relationship to the entire XML e-DMR file.

The following image highlights a section of the DMR and assigns a section number to it. The XML is then displayed with the corresponding section number on the following pages.



1. Section 1


```
<FacilityIdentification stateFacilitySystemAcronymName="VA e-DMR" stateFacilityIdentifier="200000196224">
  <FacilitySite>
    <FacilitySiteName>Emporia WTP</FacilitySiteName>
    <FacilityDistrictName />
    <FacilityRegistryIdentifier>200000196224</FacilityRegistryIdentifier>
  </FacilitySite>
  <FacilityRegionOffice>
  <LocationAddress>
    <LocationAddressText>1521 Wiggins Rd</LocationAddressText>
    <SupplementalLocationText />
    <LocalityName>Emporia</LocalityName>
    <CountyName />
    <StateName>VA</StateName>
    <CountryName>U.S.A.</CountryName>
    <LocationZIPCode>23847</LocationZIPCode>
    <LocationDescriptionText />
  </LocationAddress>
  <MailingAddress>
    <MailingAddressText>PO Box 511</MailingAddressText>
    <SupplementalAddressText />
    <MailingAddressCityName>Emporia</MailingAddressCityName>
    <MailingAddressStateName>VA</MailingAddressStateName>
    <MailingAddressZIPCode>23847</MailingAddressZIPCode>
  </MailingAddress>
</FacilityIdentification>
```

2. Section 2


```xml
<ReportIdentification>
  <PermitNumber>VA0006220</PermitNumber>
  <StatePermitNumber />
  <PermitteeName />
  <ProgramType>VPDES</ProgramType>
  <PermitType>VPDES</PermitType>
  <FormType>Z</FormType>
  <FacilityLimitType>Final</FacilityLimitType>
  <ReportTransactionID />
  <FormComment />
  <FacilityReportGroup />
  <ReportReferenceID>7178</ReportReferenceID>
  <ReportStartDate>2015-06-01</ReportStartDate>
  <ReportEndDate>2015-06-30</ReportEndDate>
  <ReportFrequency>Monthly</ReportFrequency>
  <GeneralReportComment />
  <DueDate>2015-07-10</DueDate>
  <ReportCreateDate />
  <OriginalOrRevision />
  <AgencyComment />
</ReportIdentification>
```


3. Section 3


```xml
<MonitoringLocationGroup monitoringLocationName="001">
  <LocationGroupIdentification monitoringLocationName="001">
  <MonitoringData>
    <ParameterIdentification>
    <Laboratory>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
  </MonitoringData>
  <MonitoringData>
  <MonitoringData>
</MonitoringLocationGroup>
```


4. Section 4


```xml
<OperationalData>
  <RepresentativeName />
  <ResponsibilityArea />
  <Title />
  <RepresentativeContactInfo>
    <EmailAddressText />
    <TelephoneNumber />
    <PhoneExtension />
    <FaxNumber />
    <AlternateTelephoneNumber />
  </RepresentativeContactInfo>
  <CertificationCategory />
  <CertificationNumber />
  <OperatorRequiredInd>N</OperatorRequiredInd>
</OperationalData>
```

5. Section 5

```
<Certification>
  <CertificationStatement>
  <Certifier />
  <CertifierTitle />
  <CertifierContactInfo>
    <TelephoneNumber />
  </CertifierContactInfo>
  <CertificationDate />
  <PIN />
</Certification>
```

Please note that the data that is populated in the template XML file and used for the preview can be thought of as the data that is needed to create a blank DMR form, ready to be filled out by the corresponding facility. All data that is in the pre-populated template file has been drawn from the DEQ database to simplify reporting for the facility and to increase accuracy. Since this is the template file, or the blank DMR form, these values will be populated with actual reporting data once the submission XML file has been created by the facility.

3.2.2.2 Step 2: Result Data Population

A variety of commercially available software can be used to populate the XML template file that is downloaded from the e-DMR system. A simple text editor such as Notepad or WordPad can be used, or targeted XML data entry software such as Altova XML Spy. However, DMR facilities that prefer the XML submission option typically make this choice because they can configure their existing DMR tracking software to output or convert their DMR results automatically to the e-DMR XML schema format. If your software can be configured or customized to output XML files automatically in the e-DMR format, then this submission option may be the preferred option.

Regardless of the approach used to populate the XML file, the following elements in the XML file will need to be populated prior to submitting the file:

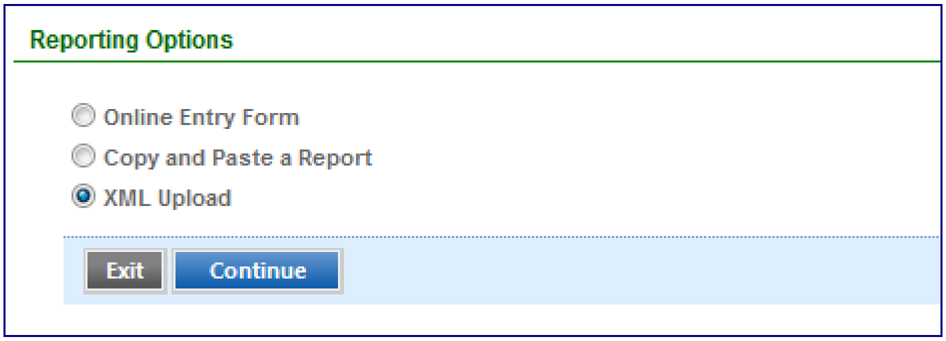
Field	Description	XML Path
ReportStartDate	The first date of the monitoring period.	<Submission> <Facility> <Report> <ReportIdentification> <ReportStartDate>
ReportEndDate	The last date for the monitoring period.	<Submission> <Facility> <Report> <ReportIdentification> <ReportEndDate>
SubmissionFileCreatedDate	The date on which the XML file has been created.	<Submission>
DueDate	The date on which the DMR	<Submission>

	is due.	<Facility> <Report> <ReportIdentification> <DueDate>
ReportCreateDate	The date on which the XML file has been created.	<Submission> <Facility> <Report> <ReportIdentification> <ReportCreateDate>
MonitoringStartDate	The first date of the monitoring period.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <MonitoringStartDate>
MonitoringEndDate	The last date for the monitoring period.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <MonitoringEndDate>
CertificationDate	The date on which the file is being uploaded to the state (i.e. certified for accuracy and completeness)	<Submission> <Certification> <CertificationDate>
NoDischargeIndicator	Indicates whether there was no discharge at the outfall during the monitoring period. (Specify Y if there was no discharge; N if there was a discharge.)	<Submission> <Facility> <Report> <MonitoringLocationGroup> <LocationGroupIdentification> <NoDischargeIndicator>
MeasurementValue	Used to provide the value for the concentration minimum, concentration maximum, concentration average, loading maximum, or loading average result.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <MeasurementValue>
QCExceedance	Indicates the number of excursions for a particular parameter.	<Submission> <Facility> <Report> <MonitoringLocationGroup>

	Note: This field is required in all cases except when there are no limits for that parameter. Only the 1st instance of the 5 blocks of SummaryofMonitoringResult need to be filled in; it is the 1st instance that is used by the e-DMR system.	<MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <QCExceedance>
ActualSampleFrequency	Indicates the actual sample frequency for each parameter on the DMR	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <ActualSampleFrequency>
ActualSampleType	Indicates the actual sample type for each parameter on the DMR	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <ActualSampleType>
RepresentativeName	This field is used to supply the operator in responsible charge. This data element is only required if the facility is required to report operator information.	<Submission> <Facility> <Report> <OperationalData> <RepresentativeName>
CertificationNumber	This field is used to supply the Operator Certification number. This data element is only required if the facility is required to report operator information.	<Submission> <Facility> <Report> <OperationalData> <CertificationNumber>

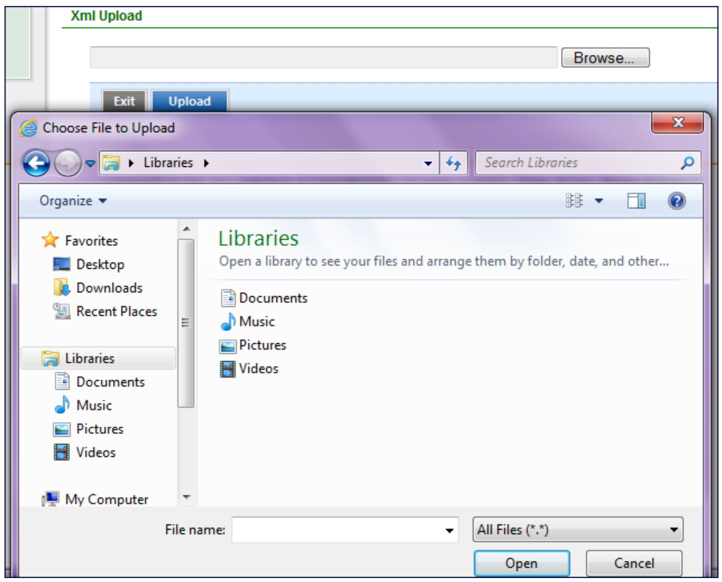
3.2.2.3 Step 3: Upload

Once an XML file has been generated and saved locally, the file can be submitted to the e-DMR System. Submitted files can be viewed by regulatory agencies and accessed for future reference. To submit the XML file, click on the Online Entry icon for the corresponding record, which will bring up the following page:



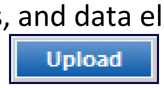
Select the "XML Upload" radio button and click 

.



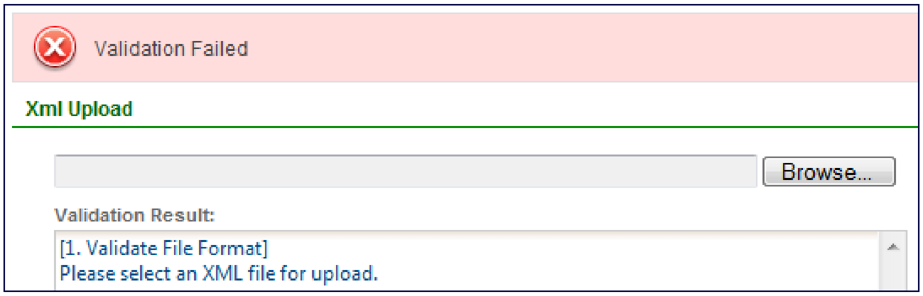
To select the XML file, click on the "Browse" button. This will bring up the Choose File message box. Browse through the local file directory, and select the file to be uploaded.

Note that the file selected must be a valid XML file. If the file does not have an .xml extension, an error will occur. Also, the file must be an e-DMR schema instance document that must comply with the national e-DMR XML schema file format. A copy of this file format and specifications can be found at the EPA/State Exchange Network website at http://www.exchangenetwork.net. The file must comply with the naming conventions of the data elements, order of the data elements, and data element data type definitions.

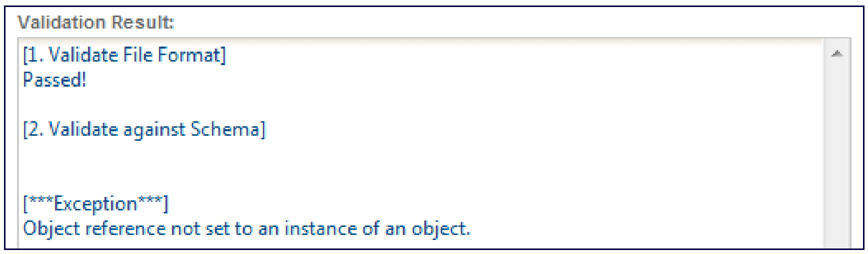
Once the file has been selected, click the 

button. The system will run a validation check and display an error if there is something wrong with the file. Listed below are the most common errors:

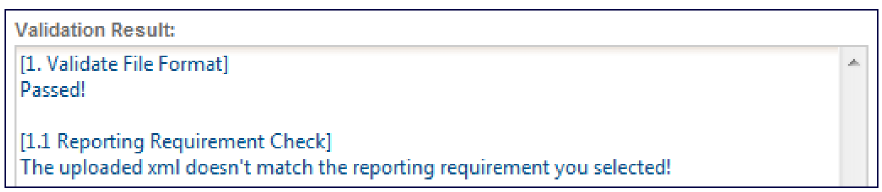
1. The file is not in XML format – for example, the submission file is in Word format:



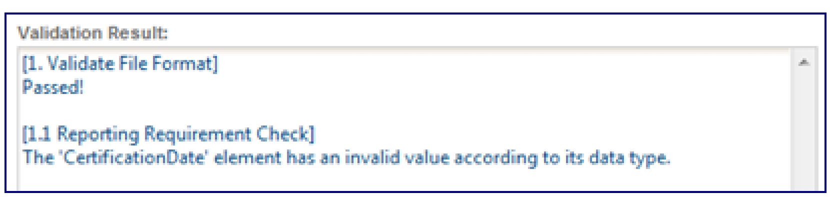
2. The file is in valid format, but it is not well defined:



3. The file is in a valid format, but not the correct e-DMR type. For example, if the XML file for the wrong report is submitted, then the error message will be:



4. The file is in valid format and correct type, but with some errors, in which case the detailed error messages will be displayed. For example, in the submission XML file, an invalid date was input. The following error message will be generated:



Other potential error messages:

Error Message	Potential Cause
No reporting requirement can be found in E2 associated with this XML file.	E2 is not expecting a DMR with the specified start date and end date for this facility. This error is usually encountered when the ReportStartDate and ReportEndDate elements are not specified.
The "<" character cannot be included in the name…	This is usually caused by not having the XML file conform to the XML schema, either by having an extra "<" or ">" or omitting an "<" or ">"
The 'date' element is invalid – The value '' is invalid according to its datatype.	XML requires that all date fields be supplied. This error message indicates that some date field in the XML file has not been filled in.
{elementName} is required	A required field in the XML file (from the table above) was not specified.

The user can correct the errors, and resubmit the file. If the test is successful, the page will indicate that the submission has passed validation.

3.2.2.4 Step 4: Attachment

This step is identical to the Attachment step for the online data entry method. For further details, please refer to Section 3.2.1.4: Attachment.

3.2.2.5 Step 5: Validation

This step is identical to the Validation step for the online data entry method. For further details, please refer to Section 3.2.1.5: Validation.

3.2.2.6 Step 6: Submission

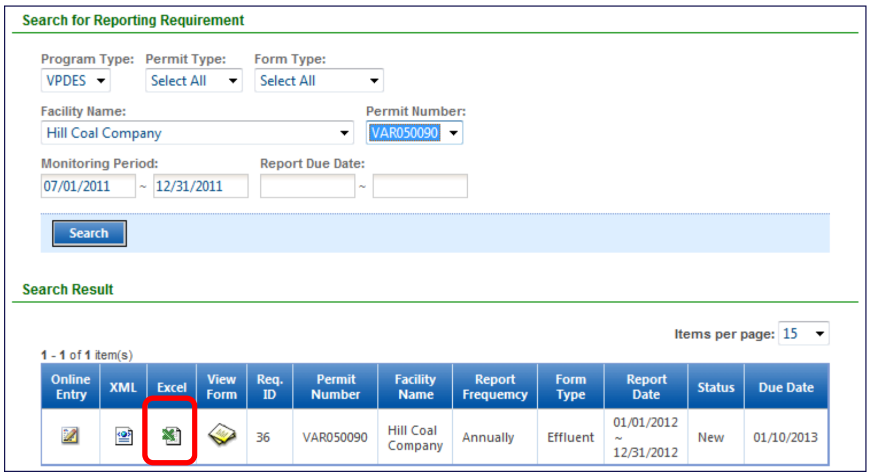
This step is identical to the Submission step for the online data entry method. For further details, please refer to Section 3.2.1.6: Submission.

3.2.3 Using the Excel Copy-and-Paste Feature

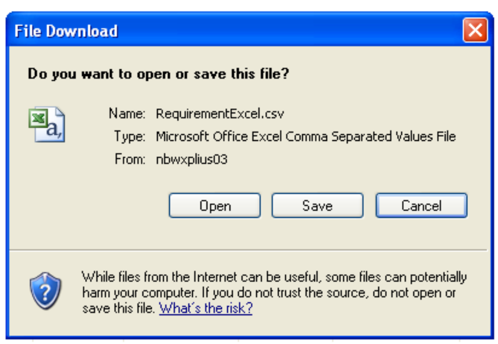
In many cases, a facility may store its DMR data electronically in a common spreadsheet software application, such as Microsoft Excel. To blend the simplicity of the web form with the ease-of-use of commonly used spreadsheet programs, there is a copy-and-paste feature available on the DMR web form.

3.2.3.1 Step 1: Downloading Reporting Requirements

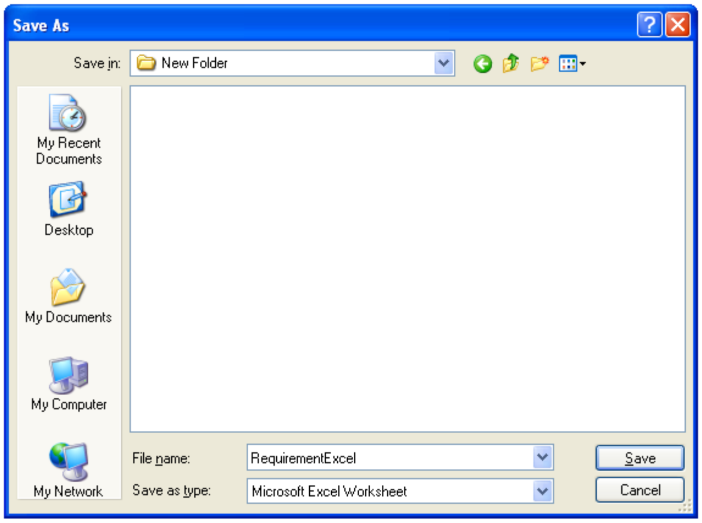
To download a DMR template file in Excel file format, return to the Create a New Report screen and click on the Excel icon  for the corresponding record:



This will begin a series of message boxes.



To open the file in a new window without saving, click "Open." Alternately, the user should click "Cancel" if he or she does not wish to save or open the file. However, if the user wishes to download the template DMR Excel file, he/she should click "Save," at which point the user will be prompted to respond with the location he/she wishes to save the file in.



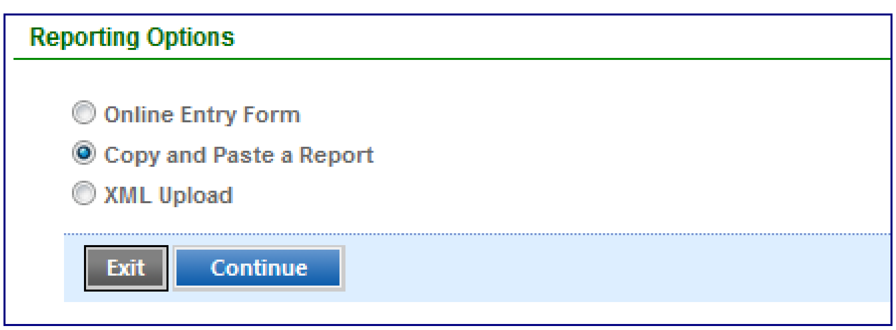
The template DMR Excel file is a Comma Separated Value (CSV) file that can be read by Microsoft Excel and other spreadsheet programs. This file contains a listing of the parameters on the left-hand side and the heading of the columns of the DMR form across the top. The facility user can then begin using this Excel spreadsheet to enter in DMR results.

3.2.3.2 Step 2: Filling out the DMR Form

The CSV file that is downloaded from the e-DMR system can be opened by Excel and most other spreadsheet programs. Once this file is opened, it can be edited in any way as seen fit by the facility, but the **order of the columns should not be modified**. This is because, in Step 3, the data will be copied from the Excel file and pasted back into the e-DMR system web form, which will expect the data in the same order in which it was downloaded.

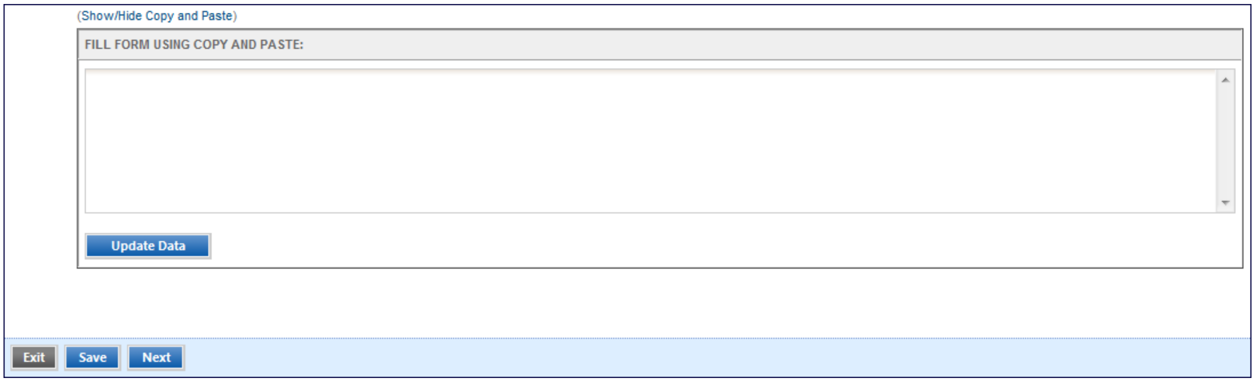
3.2.3.3 Step 3A: Result Data Population

Once the facility user is finished filling out the Excel spreadsheet, he/she can return to the e-DMR system and go to the Create a New Report screen to submit the report. To access the DMR web form, click on the Online Entry icon for the corresponding record, which will bring up the following page:



Select the "Copy and Paste a Report" option and click 

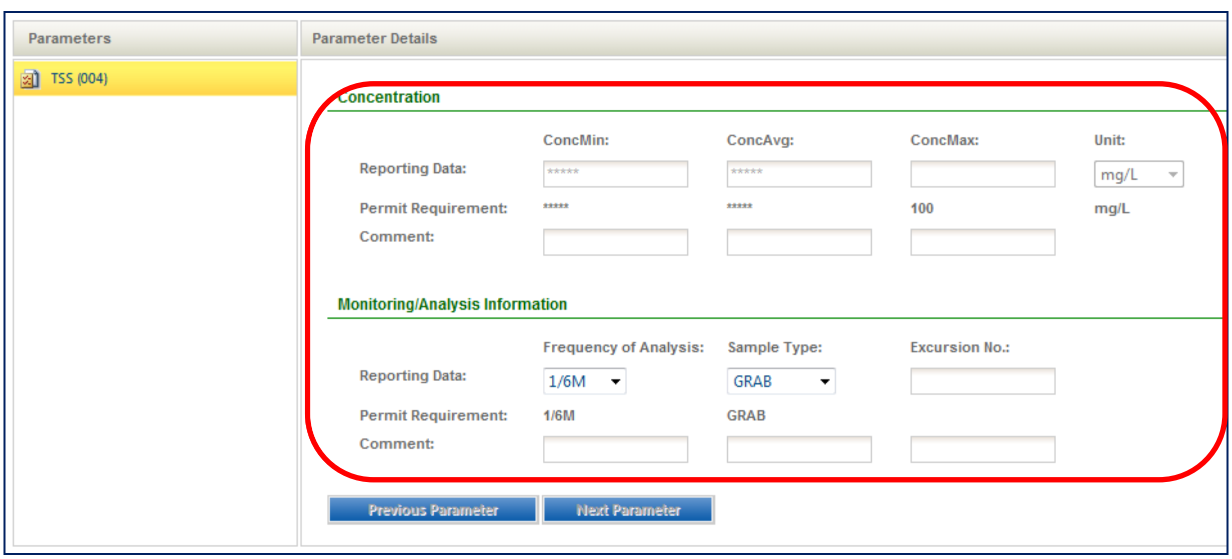
to open the following page:



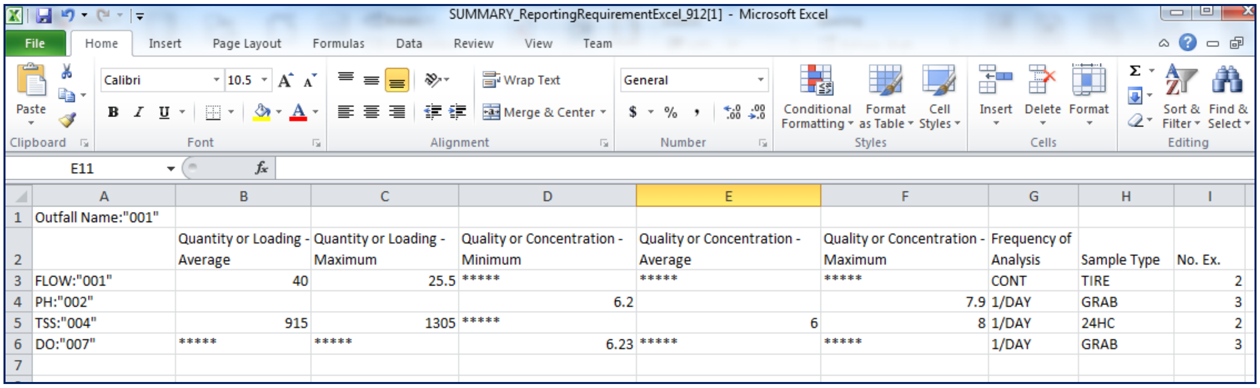
This is the same as the Online Entry page, but the user is brought to a textbox at the bottom for copying in data. Copying and pasting data allows for standardization of data, reducing the degree of error that may occur by retyping the data. To use the copy and paste conversion tool, there are a couple rules that must be followed:

1. The order of the parameters in each row and the order of columns of the locally saved spreadsheet must be in the same order as those on the DMR Data web form.
2. Only the body of the DMR form may be copied (e.g., the area where data/values have been entered). This does not include the parameter row headings, columns headings, operator information section, or comments section. operator information and comments sections information must be entered manually.

Looking first at rule #1, examine the web form parameters and pay special attention to their order as listed across the page. The following figure outlines this area:

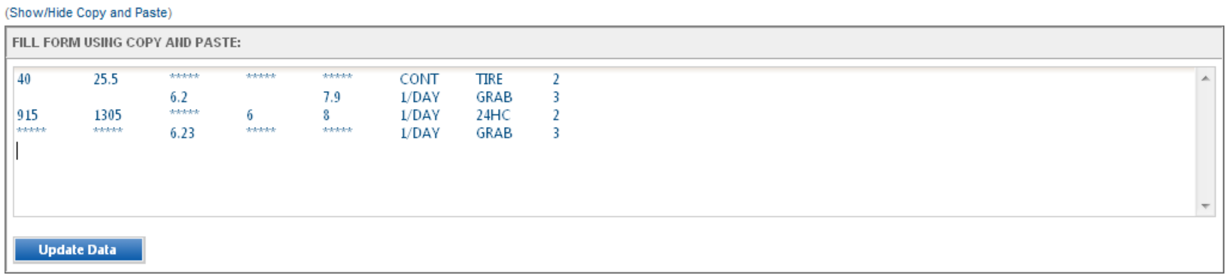


Next, open the spreadsheet software that stores the DMR data. Verify that the parameters listed are the same as those on the web form, and that the order matches exactly (which will be true by default). This may take some time to set up, but it need only be done once. Multiple templates may be required for DMRs of different outfalls,seasonal parameters or different monitoring periods). The following image illustrates this:



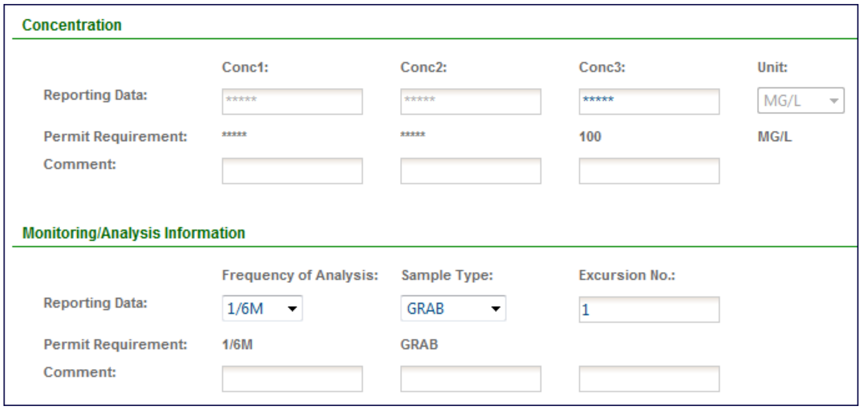
In this case, the parameters are identical and in the same order, and the column order is the same across the top of the spreadsheet. Note that only the data itself is selected; make sure that the parameters, column headers, or extra columns to the right are *not* selected and copied.

Back in the e-DMR system, paste the report inside of the text box beneath the Copy and Paste box.



This will paste the tab delimited data that had been copied from the locally saved spreadsheet. Click 

to view the results in the Online Entry form:



Note: If the permit contains multiple outfalls, only one outfall can be pasted at a time. Use the "Outfall" drop-down menu to change outfalls and be able to paste in the data for each one, until all outfalls are populated.

Complete the DMR web form by filling in the other fields that could not be pasted, such as bypass and overflows and comments. For detailed instructions on filling out the online entry form, please refer to Section 3.2.1.2: Application.

3.2.3.4 Step 3B: General Report Comments and Explanation

This step is identical to the General Report Comments and Explanation step for the online data entry method. For further details, please refer to Section 3.2.1.3: General Report Comments and Explanation.

3.2.3.5 Step 4: Attachment

This step is identical to the Attachment step for the online data entry method. For further details, please refer to Section 3.2.1.4: Attachment.

3.2.3.6 Step 5: Validation

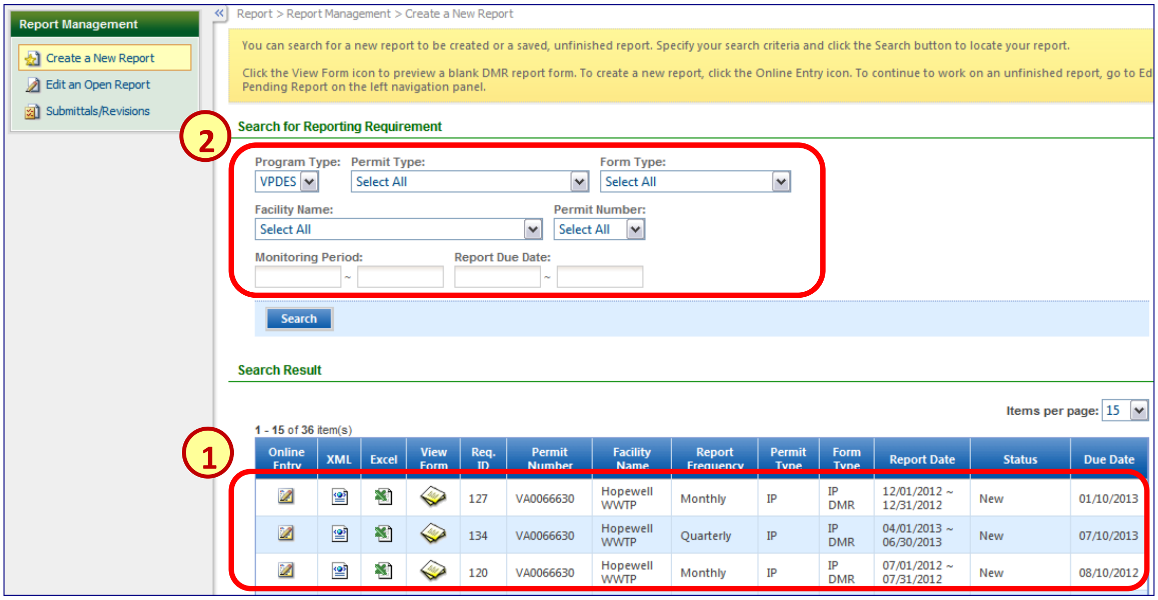
This step is identical to the Validation step for the online data entry method. For further details, please refer to Section 3.2.1.5: Validation.

3.2.3.7 Step 6: Submission

This step is identical to the Submission step for the online data entry method. For further details, please refer to Section 3.2.1.6: Submission.

3.3 Creating a New Storm Water Industrial (SWI) General Permit Report

To begin filling out a report using any of the three options above, the user will want to first click on the Create a New Report link in the functional area to the left, which will bring up the Create a New Report screen, as shown below:

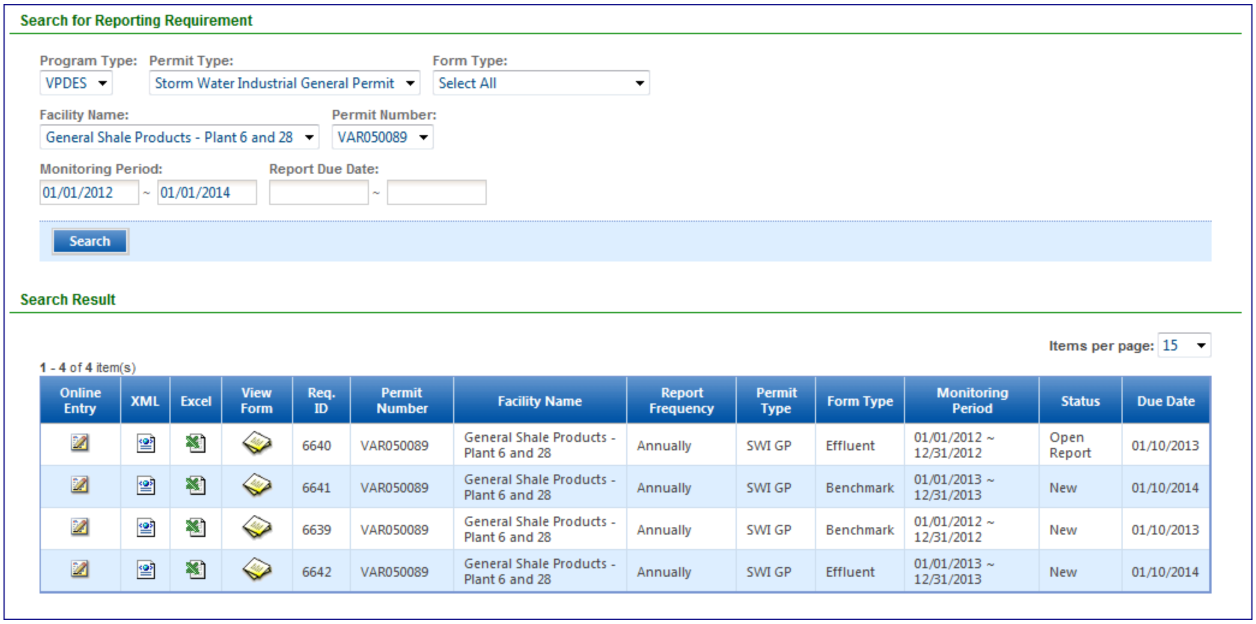


1. By default, this screen will display all DMRs that are due for all facilities at which the user has any kind of role (Certifier/Preparer/Viewer). One row will be displayed for each DMR that must be submitted.

2. To accommodate the possibility that a user may be submitting DMR results for more than one facility, the system allows a user to be associated with multiple facilities.[2] The user can select the registered facility on the drop-down pick list to filter out the DMR reports for that facility. Only those facilities that the user is associated with, whether as a Certifier, Preparer, or Viewer, will be displayed in the drop-down. The user may also choose to filter the DMRs by permit type, form type (i.e., SWI GP permit type only), monitoring date, report due date, and permit number.

After the filtering criteria are entered, the user can click the Search button to filter the results.

[2] Example: an entity or contractor operating and reporting for multiple individual permitted facilities can have appropriately designated users associated with these multiple individual permitted facilities using their existing User name and password.

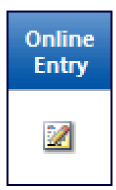


Online Entry	XML	Excel	View Form	Req. ID	Permit Number	Facility Name	Report Frequency	Permit Type	Form Type	Monitoring Period	Status	Due Date
				6640	VAR050089	General Shale Products - Plant 6 and 28	Annually	SWI GP	Effluent	01/01/2012 ~ 12/31/2012	Open Report	01/10/2013
				6641	VAR050089	General Shale Products - Plant 6 and 28	Annually	SWI GP	Benchmark	01/01/2013 ~ 12/31/2013	New	01/10/2014
				6639	VAR050089	General Shale Products - Plant 6 and 28	Annually	SWI GP	Benchmark	01/01/2012 ~ 12/31/2012	New	01/10/2013
				6642	VAR050089	General Shale Products - Plant 6 and 28	Annually	SWI GP	Effluent	01/01/2013 ~ 12/31/2013	New	01/10/2014

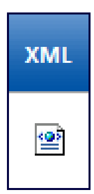
To display all results, simply remove all criteria and click "Search" again.

Each row in the table represents a DMR that must be submitted. In addition to general information about each DMR (such as the Facility for which it applies, the reporting frequency, and reporting period), four reporting function tasks can be performed for each search result.

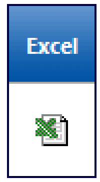
- Enter data through the Online Entry form (used for the online data entry submission method)



- Download a template XML file by clicking on the XML icon (used for the XML file submission method)



- Download a template Excel file by clicking on the Excel icon (used for the Excel copy-and-paste submission method)



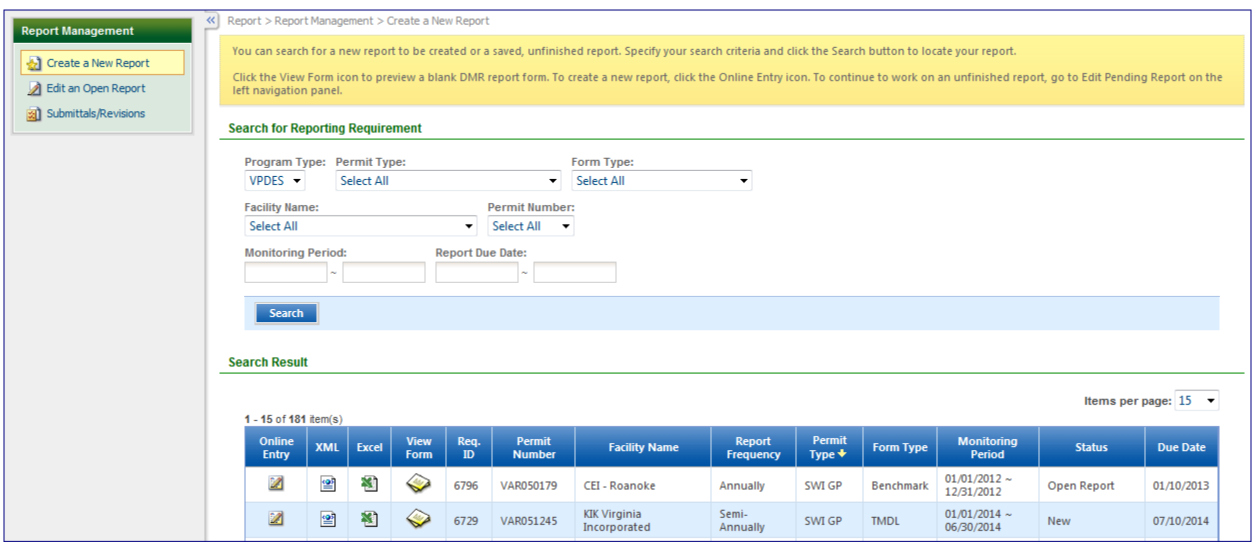
- Preview a reporting requirement by clicking on the View Form icon. This is similar to viewing a blank DMR form that displays the reporting requirements and limits, but it does not yet display the DMR results.

The following sections describe the procedure to submit DMRs using each of the three available submission options.

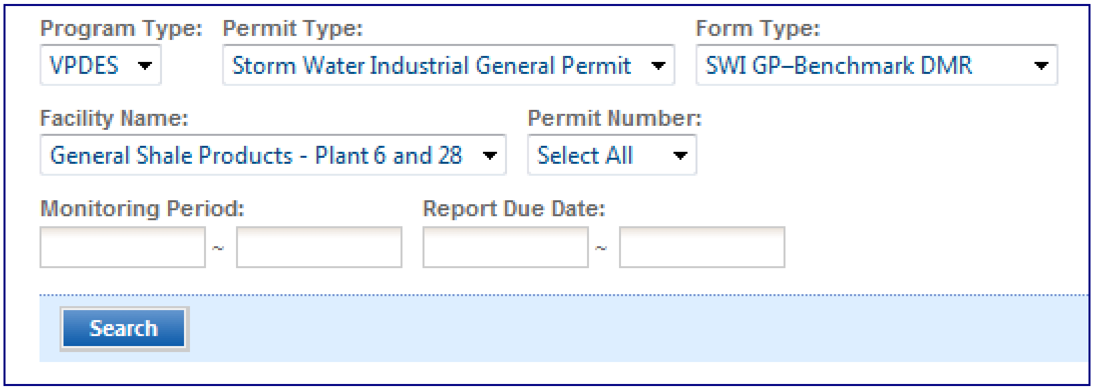
3.3.1 Using the Online Data Entry Feature

To begin to submit a report using the online data entry feature, click on the 

icon in the Report Management functional area to the left, which will bring up the Create a New Report screen, as shown here:



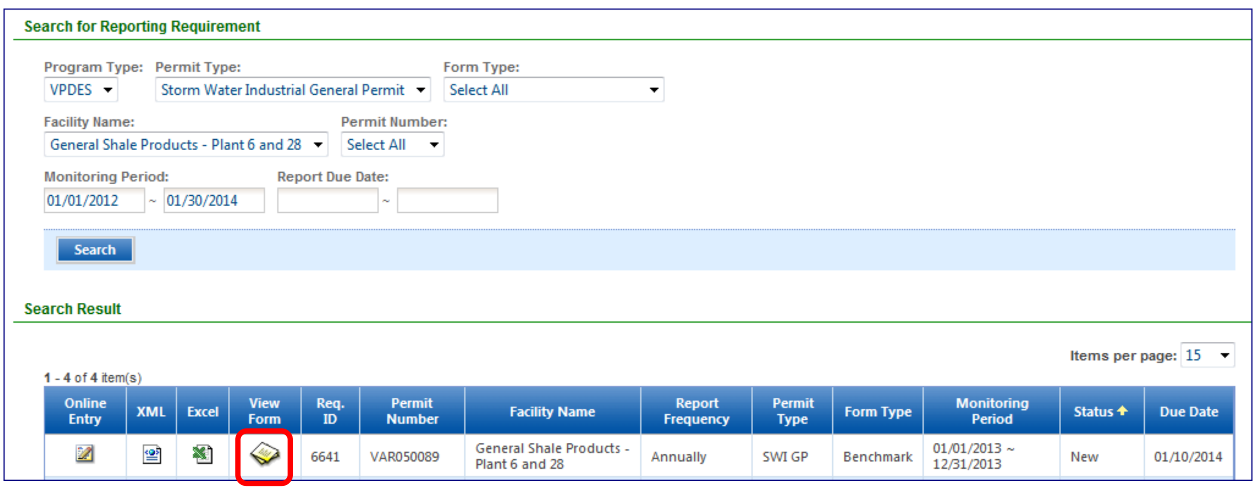
In this case of filling in SWI reports, we want to filter the results by Permit Type corresponding to "Storm Water Industrial General Permit". If desired, the user can further filter the results by selecting a facility and permit number via the drop-down menus.



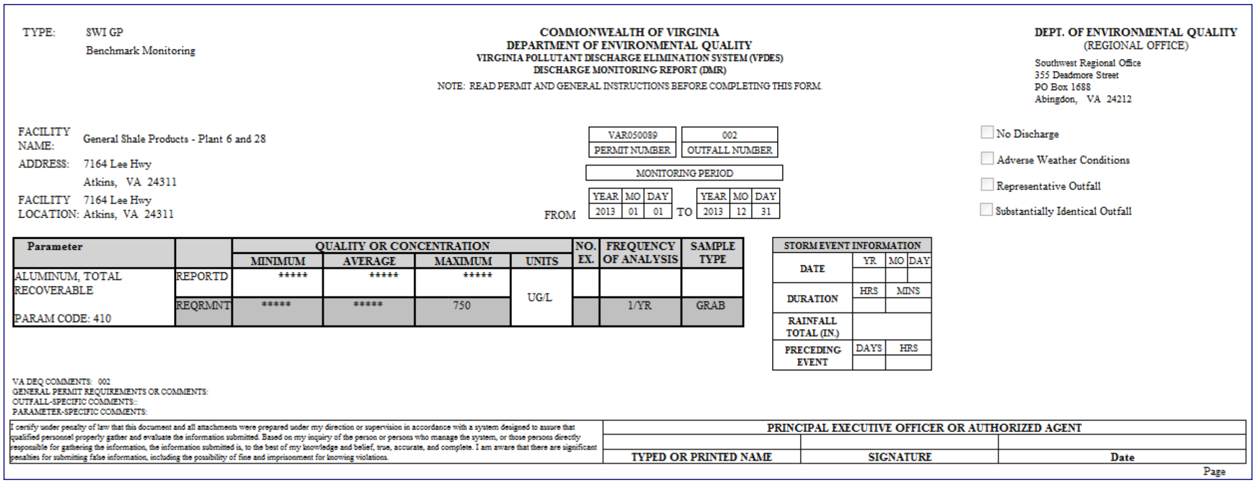
Now that the facility and permit are selected, multiple reporting frequencies may be present for the same facility, such as Monthly, or Semi-Annually, depending on the reporting requirements for the facility.

3.3.1.1 Viewing Reporting Requirements (Optional)

Before a DMR file (record) is generated, a user may wish to preview and print out the reporting requirements (for reference). To preview or print a DMR, click on the View Form icon for the corresponding record.



This will bring up the following pop-up browser that displays the DMR in a format that is very similar to the paper form:



TYPE: SWI GP
Benchmark Monitoring

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES)
DISCHARGE MONITORING REPORT (DMR)
NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)
Southwest Regional Office
355 Deadmore Street
PO Box 1688
Abingdon, VA 24212

FACILITY NAME: General Shale Products - Plant 6 and 28
ADDRESS: 7164 Lee Hwy
Atkins, VA 24311
FACILITY LOCATION: 7164 Lee Hwy
Atkins, VA 24311

PERMIT NUMBER	OUTFALL NUMBER
VAR050089	002

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2013	01	01	TO	2013	12	31

No Discharge
Adverse Weather Conditions
Representative Outfall
Substantially Identical Outfall

Parameter		QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		MINIMUM	AVERAGE	MAXIMUM	UNITS			
ALUMINUM, TOTAL RECOVERABLE	REPORTD	*****	*****	*****	UG/L			
PARAM CODE: 410	REQRMNT	*****	*****	750			1/YR	GRAB

STORM EVENT INFORMATION			
DATE	YR	MO	DAY
DURATION	HRS	MINS	
RAINFALL TOTAL (IN.)			
PRECEDING EVENT	DAYS	HRS	

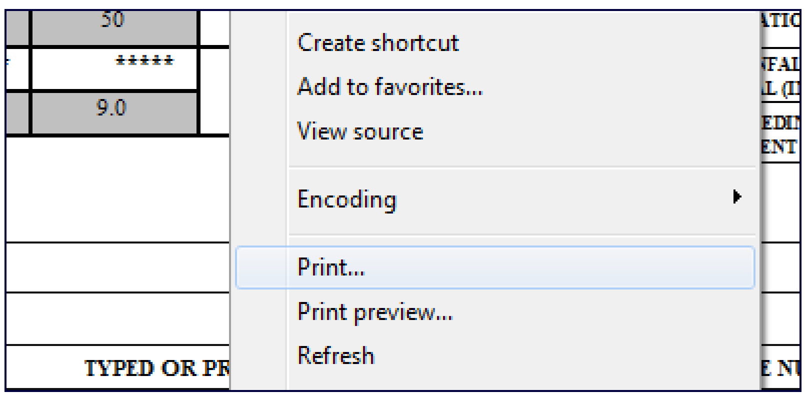
VA DEQ COMMENTS: 002
GENERAL PERMIT REQUIREMENTS OR COMMENTS:
OUTFALL-SPECIFIC COMMENTS::
PARAMETER-SPECIFIC COMMENTS:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		
TYPED OR PRINTED NAME	SIGNATURE	Date

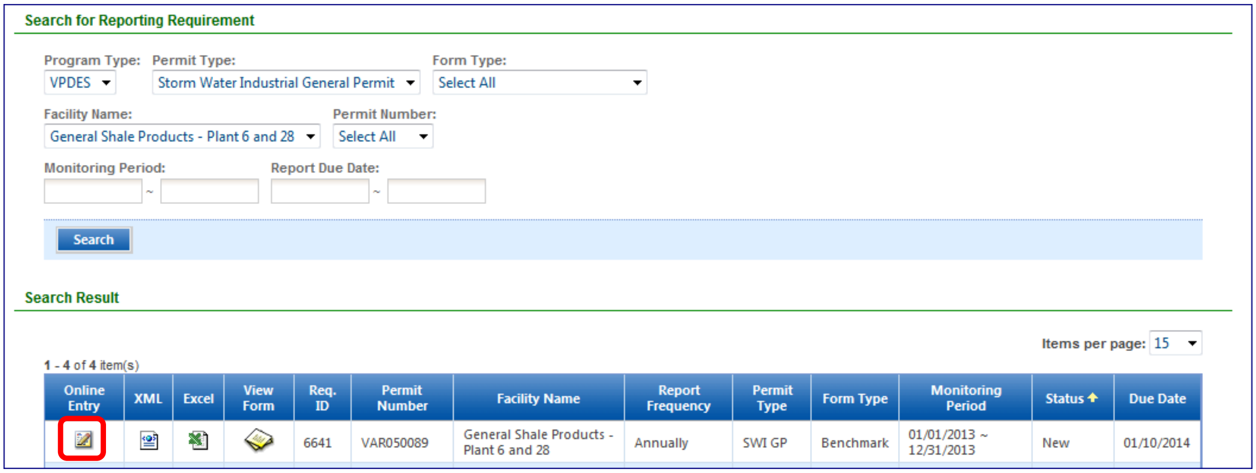
Page

The form at this point is considered a template, since the permit limits and parameters are listed without actual measured values. To print this template, right-click within the pop-up window and select Print, as shown below:

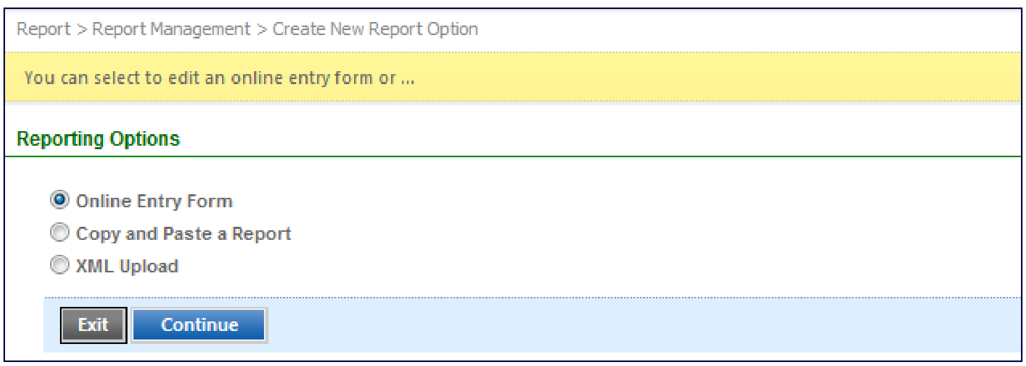


3.3.1.2 Step 1: Application

To begin filling out the DMR using the online web form, return to the Create a New Report screen by clicking on the Create a New Report icon in the Report Management functional area to the left. Select the desired facility and permit number using the drop-down menus, and click on the Online Entry icon  for the corresponding report frequency and monitoring period.

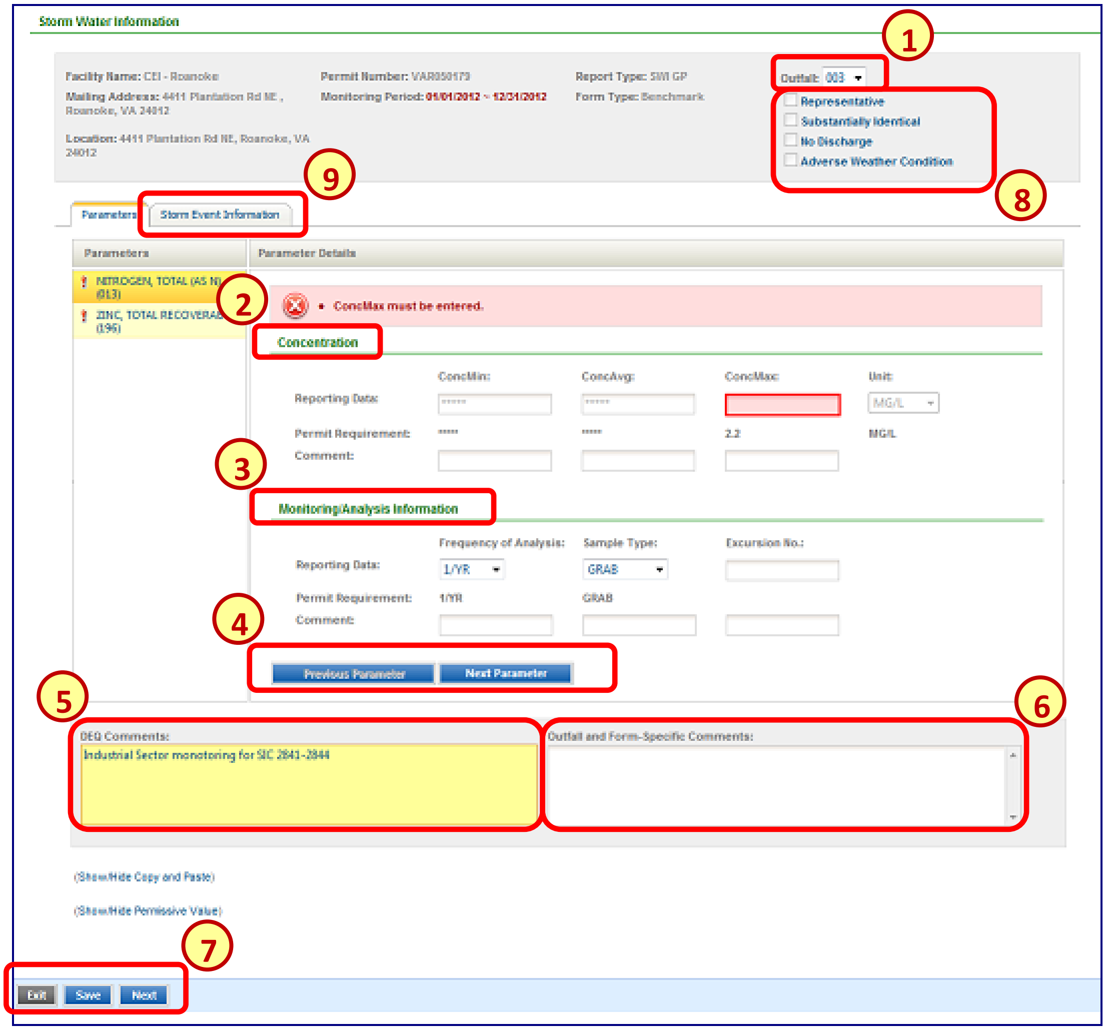


This will initiate the Report Wizard:



Start the report by choosing a reporting option. To proceed to the online entry form, click "Continue," which will bring up the online form.

The upgrade to the current eDMR application includes a new module for the Storm Water Industrial General Permit. Please use the following diagram for identifying sections and for entering in DMR results for this report type:



The Online Entry or "web" form is pre-populated with the facility and permit information, report identification, parameter list, and permit limit values. Text fields, checkboxes, and drop-down menus indicate to the user those areas that he/she is expected to fill in.

1. **Navigating among outfalls (i.e. monitoring locations):** One facility may be required to submit a DMRs for multiple outfalls. In order to fill out the DMR form completely for each outfall, use the Outfall drop-down at the top-right corner of the web form.

2. **Concentration section:** Enter the minimum and maximum data in the fields in the "Reporting Data" row. Be sure to enter an appropriate data value in accordance with the units listed; additional data conversion may be necessary to translate data from a lab report to match the units specified in eDMR. The eDMR units displayed are a protected field that can't be changed.

As indicated at the bottom of the page (under the “Show/Hide Permissive Value” link), the “Reporting Data” text fields in the concentration section will accept only the following predefined values:

- Numbers
- “X”: No sample results
- “NR”: Not required
- “<QL”: Below quantification level (no space between “<” and “QL”)
- “>”: Greater than (along with a numeric value)
- “<”: Less than (along with a numeric value)

(Show/Hide Permissive Value)

1 - 5 of 5 item(s)

Permissive Value	Description
>	Greater than [insert value] results
<	Less than [insert value] results
NR	Not Required
X	No Sample Results
<QL	Below Quantification Level

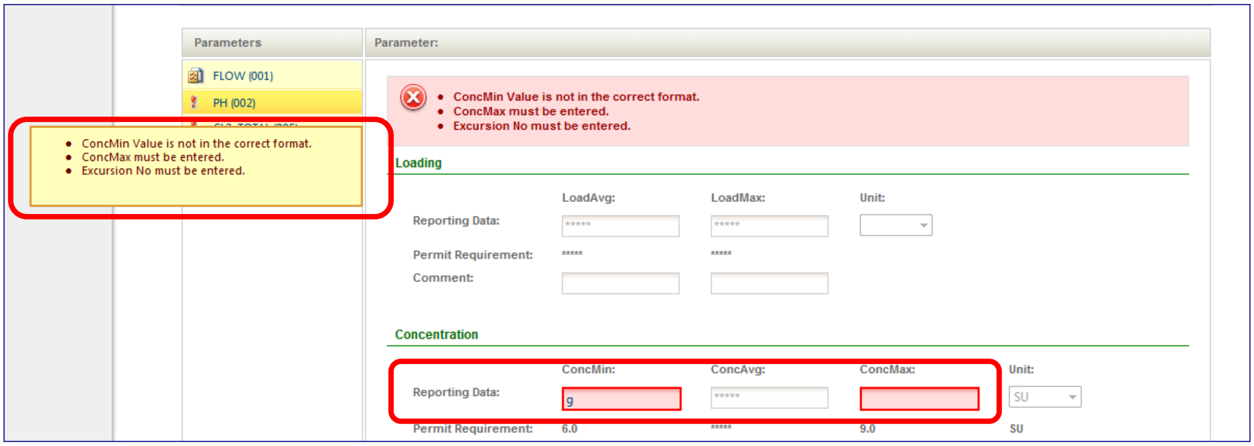
Apostrophes (“’”), commas (“,”), forward-slashes (“/”), and underscores (“_”) are *not* permitted in the online data entry form. The “>Greater than [insert result]” value and “<Less than [insert result]” value symbols can be used to report qualified data.

Note: There are “Comment” sections below each “Permit Requirement” where a parameter-specific comment/explanation can be entered. Any ‘Comment’ entered will be associated with the specific parameter and related DMR data entry. [This is not to be confused with the “Outfall and Form Specific Comments” section mentioned further down in this Users Guide document.]

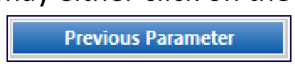
E2 V3 offers immediate data validation that indicates to the user upon opening the form which fields are required to be filled. The validation check also runs whenever the user switches to a different parameter or outfall on the report.

- ConcMin Value is not in the correct format.
- ConcMax must be entered.
- Excursion No must be entered.

If any of the required eDMR entry fields are left blank or do not comply with eDMR data entry format when the user navigates to a different parameter, the icon will appear next to the parameter name in the list to the left. The user can view specific information on the validation issue by letting his/her mouse cursor hover over the parameter's icon .



3. **Monitoring/Analysis information:**
    - **Frequency of Analysis:** Select from the drop-down list the actual frequency of analysis for each parameter in the "reported" field in the column marked "Frequency of Analysis". If "Other" is selected, specify the actual frequency in the "Comment" field directly underneath. Permittees are required, at a minimum, to sample at the frequency indicated in the permit. If a permittee monitors any pollutant specifically addressed by the permit more frequently than the permit requires, the results of this monitoring shall be included in the calculation and reporting of the data submitted in this form.
    - **Sample Type:** Select from the drop-down list the actual type of sample collected in the field marked "Sample Type". You are required, at a minimum, to sample using the sample type indicated in your permit. If "Other" is selected, specify the actual sample type in the "Comment" field directly underneath.
    - **Excursion No.:** In the text field marked "Excursion No.", enter the number (integers only) of samples which do not comply with the maximum and/or minimum permit requirements in the "Reporting Data" fields.

4. **Navigating among parameters:** The user may either click on the parameter name in the list on the left side of the page, or use the 

and 

buttons. On the final parameter screen, the Next Parameter button is deactivated. Select Previous Parameter button or one of the Save, Exit, or Next buttons at the bottom of the screen.

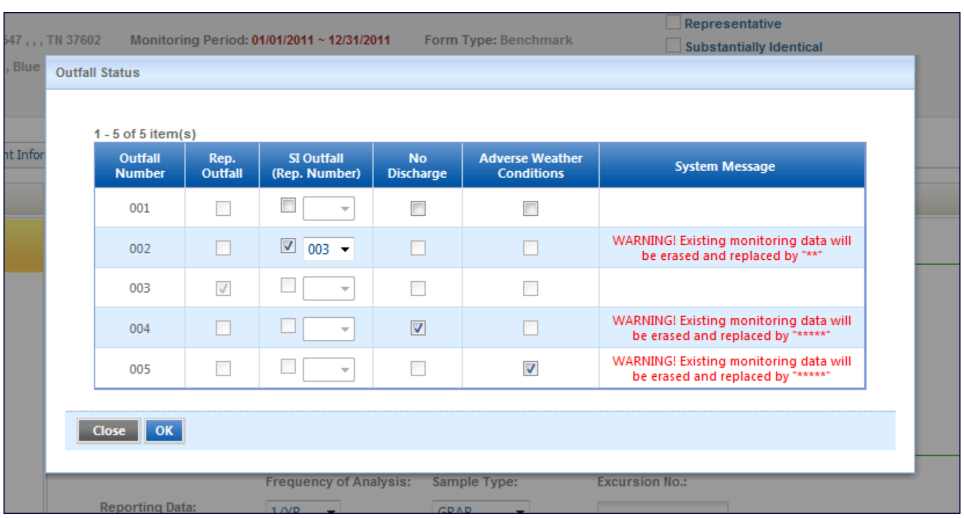
5. **DEQ Comments:** This is a read-only section that displays information input by the DEQ for the user. This display can have different messages that are specific to each outfall.

6. **Outfall- and Form-Specific Comments:** Enter specific comments and explanation in the space provided, where applicable. Where noncompliance of permit requirements is reported, attach a brief explanation in accordance with the permit requirements describing the cause(s) of the noncompliance, the duration of the noncompliance, including the date(s) the noncompliance began or occurred, and corrective actions taken and to be taken to address the noncompliance. The foregoing information should be provided for ALL noncompliance noted in this report. This comment can be unique to each outfall.

7. **Save, Exit, or Next**: To leave the DMR form *without saving*, the user may click the Exit button which is located at the bottom-left corner of every web form. To save the values that have been entered for this DMR at any time, click on the Save button; if the user saves the report, closes the web form window, logs out of the system, and returns later, his/her data will still be available just as he/she left it. (Please refer to Section 3.5: Editing or Deleting an Open Report for more information.) When this page has been appropriately completed, the user may click Next to proceed to the next step of the report submission process.

   Note: If you leave the DMR entry form without saving your data first, you risk losing any unsaved data that has been entered.

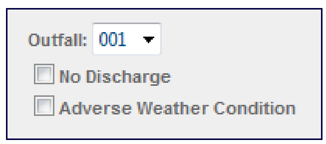
8. a. **Representative Outfall/Substantially Identical Outfall/No Discharge/Adverse Weather Conditions:** For Benchmark form types only, clicking on this area brings up the following pop-up menu, where the user may view a list of all outfalls for the given facility and mark the appropriate checkboxes (if required):



If an outfall is marked as a Substantially Identical ("SI") Outfall, then the user must use the drop-down menu to select its corresponding Representative ("Rep.") Outfall. The checkbox under "Rep. Outfall" itself is non-selectable and can *only* be automatically marked by the e-DMR system when the outfall has been chosen from the drop-down menu of an SI Outfall.

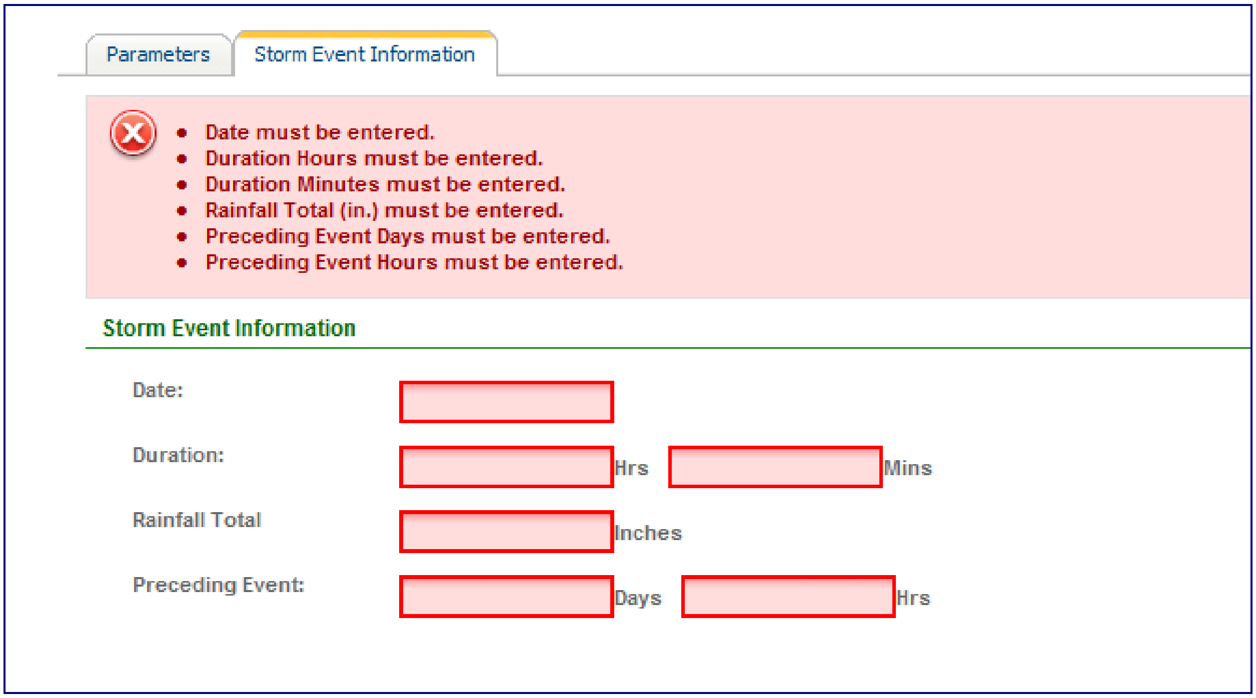
E2 runs a data validation check as soon as any checkbox is marked or unmarked, prohibiting the user from entering any information that goes against the system logic. As any given outfall may not have more than one checkbox marked at a time, the system automatically grays-out the other options to prevent users from entering illogical data. Similarly, as an additional data validation measure, only outfalls that could validly be Rep. Outfalls (i.e. have no checkboxes marked) will appear in the drop-down menu of an SI Outfall.

b. **No Discharge/Adverse Weather Conditions:** For TMDL, Impaired Water, and Effluent form types, there is no pop-up and the user should mark the appropriate checkbox (if necessary) directly on the form.



Once again, E2 automatically runs a data validation check as soon as any checkbox is marked or unmarked, prohibiting the user from entering any information that goes against the system logic.

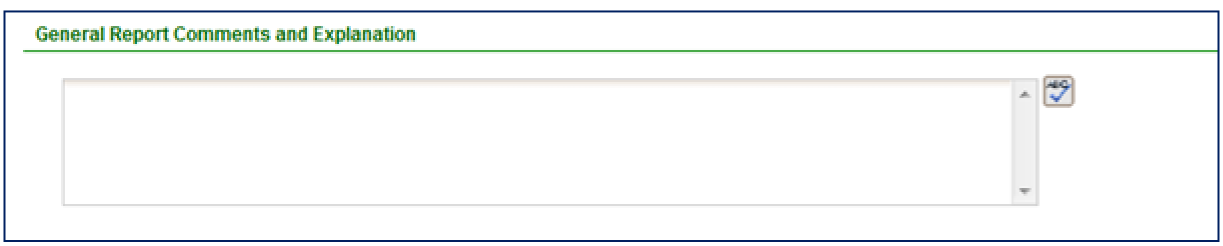
9. **Storm Event Information:** Clicking on this tab takes the user out of the Parameters page and to the Storm Event Information page, where he/she can fill in the date (which cannot be outside the date range of the monitoring period), duration, total rainfall, and preceding event.



All fields on this tab are mandatory for any outfall where monitoring data is entered; in other words, it is required for any outfall that is independent or representative.

3.3.1.3 Step 1B: General Report Comments and Explanation

After clicking the Next button at the bottom of the page, a General Report Comments and Explanation page will appear:

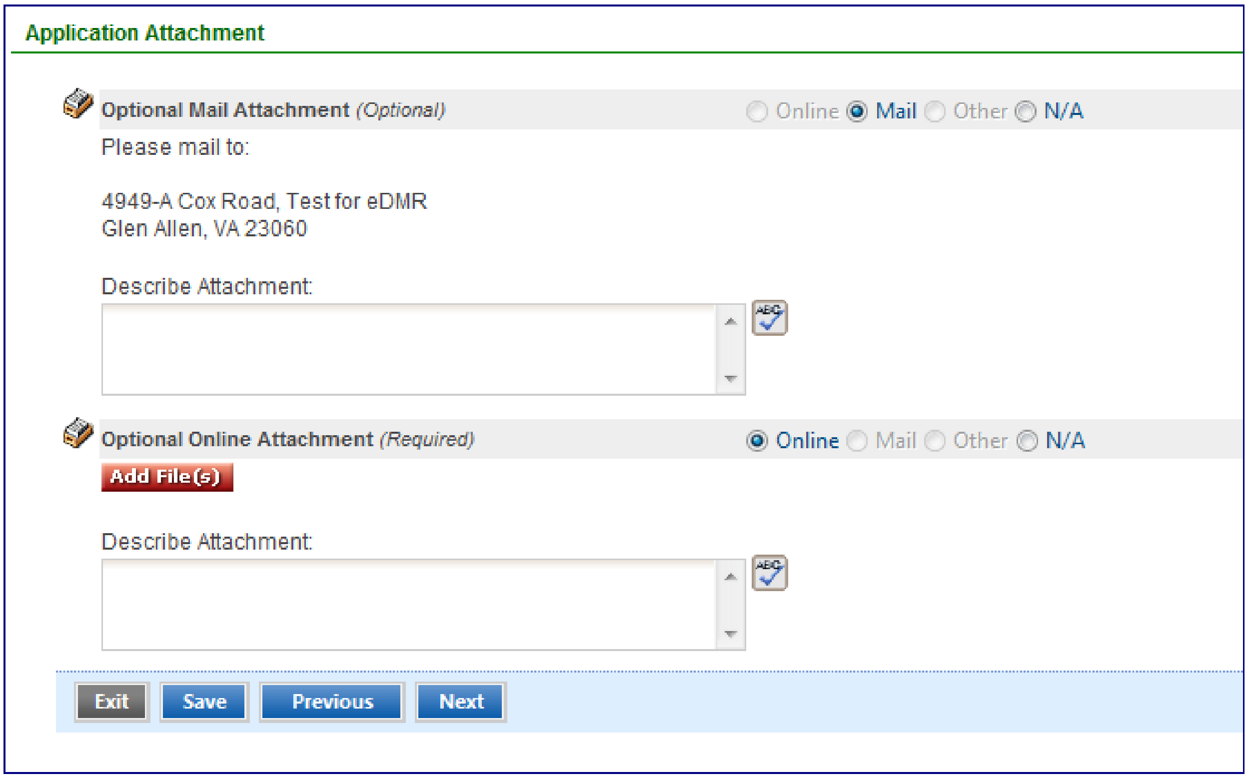


Enter general report comments and explanation in the space provided, where applicable. General report comments may include an explanation for submitting the report late, extenuating circumstances, et cetera. If there is more than one outfall for a facility and a general comment such as "We were unable to obtain a sample at Outfall 002 due to …" is entered, the same general comment will appear regardless of which outfall the viewer is navigating to. To change the general report comment at any time, click within the text box and edit as needed.

3.3.1.4 Step 2: Attachment

After completing the form, the user has the option of submitting supplemental files to this DMR report.

Note: Only attach files which document and/or supplement information associated with the DMR (e.g., Monitoring Period Data Summary and/or Operations Log, Laboratory data and information supporting 'flagged' data, DMR transmittal letter or a Written Report for any noncompliance, etc.). Do NOT attach any files or information which may be required by the permit but is not related to the DMR.



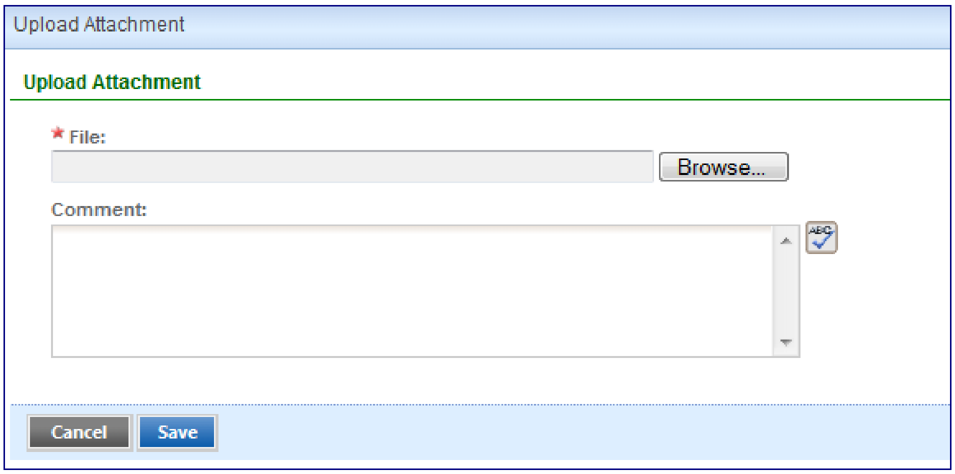
The user has two options for submitting attachments:

- **Mail Attachment:** If the user does not have an electronic copy of the attachment to submit, or if the file is too large, the user can send in the attachments via mail or email. The user can provide a description of the attachments that will be mailed so DEQ will know the nature of the attachments that will be expected via mail. Attachments are to be mailed to the appropriate Regional Office. If users intend to mail in the attachment in hard copy form, they may go to the Submit Attachment(s) by Mail section to find the mailing address.

- **Online Attachment:** The user can browse for and upload electronic files to the e-DMR server. The size of each attachment cannot be any larger than 1.5 MB. Contact eDMR Regional Administrator for alternative for submitting over-sized attachments.

Note: the maximum field length for the attachment name is 100 characters. Do not include apostrophes ("'"), commas (","), forward-slashes ("/"), spaces (" "), or underscores ("_") in the attachment names or else they cannot be opened by the DEQ staff for review.

Click on the resulting "Add File(s)" button and the following window will appear:

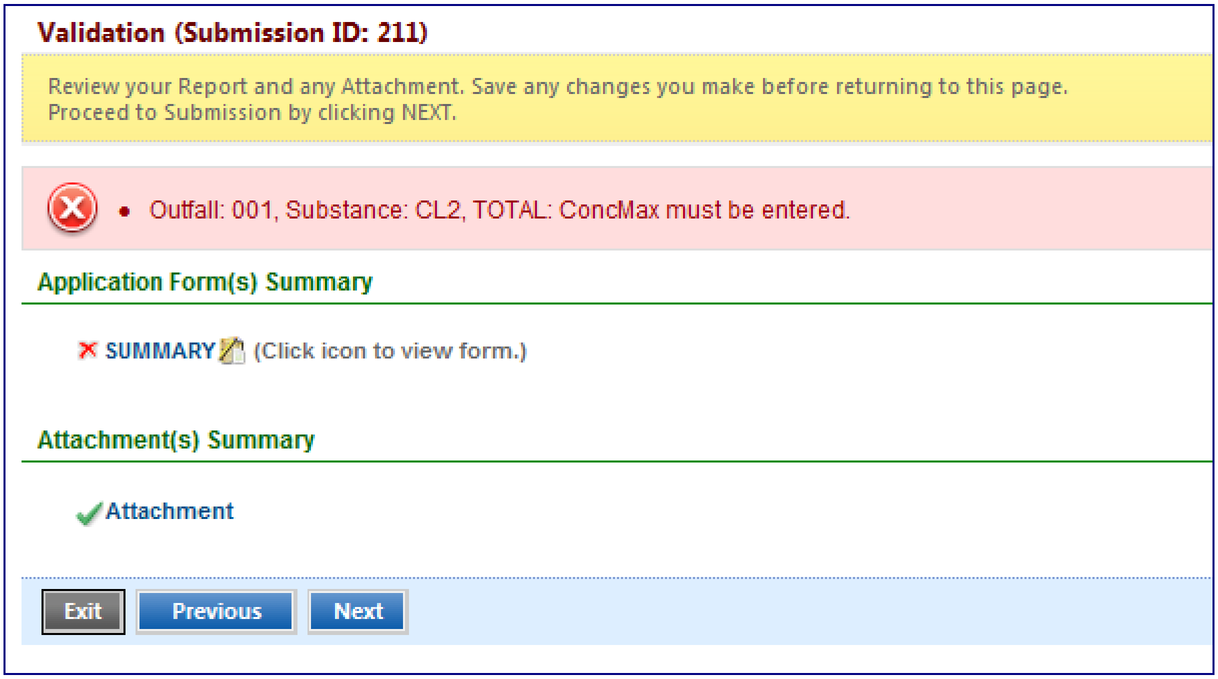


To locate the file to be attached, use the "Browse…" button. Then provide a brief description of the file in the "Comment" section. Only certain file types are allowed to be uploaded. Currently, they are:

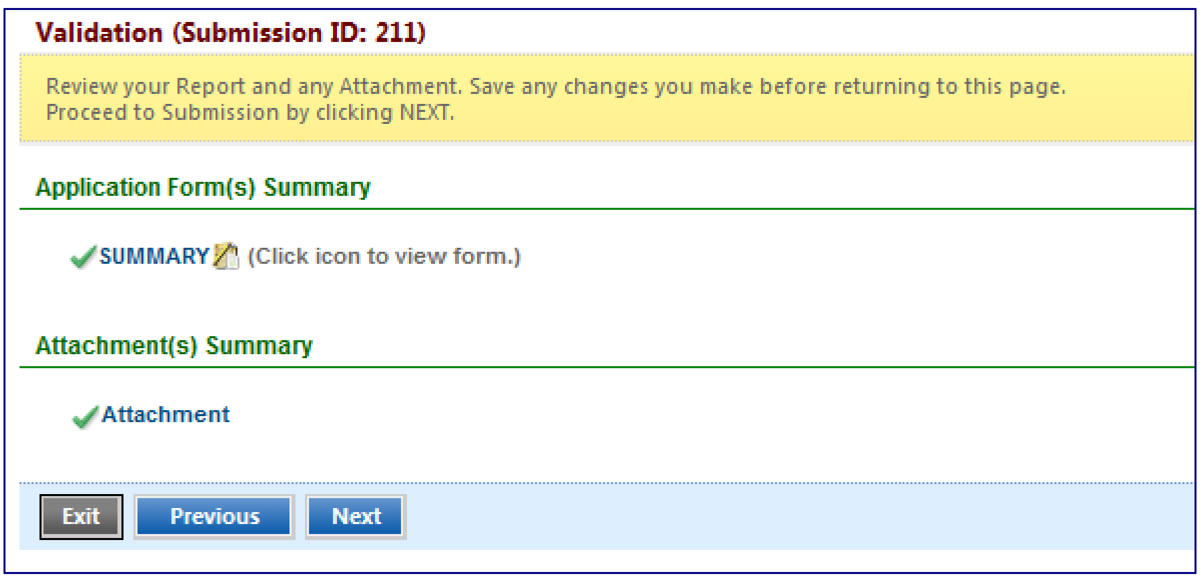
- .pdf
- .txt
- .xml
- .htm
- .zip
- Image - .jpeg, .gif, .jpg, .tif, .tiff, .bmp
- Word - .wpf, .wpd, .doc, .docx
- Excel - .xls, .xlsx
- Access - .mde, .ldb
- Visio - .vsd

3.3.1.5 Step 3: Validation

Once the user clicks the Next button, the system automatically performs a validation check to ensure that all mandatory data entry fields have been properly completed. If any part of the report fails the validation check, then the user may click on the link provided to go back to Step 1A: Application. The user may also click on the icon to view the reporting requirements.



If the system deems the report to be properly completed, then the following page is displayed and the user may proceed to the final step.

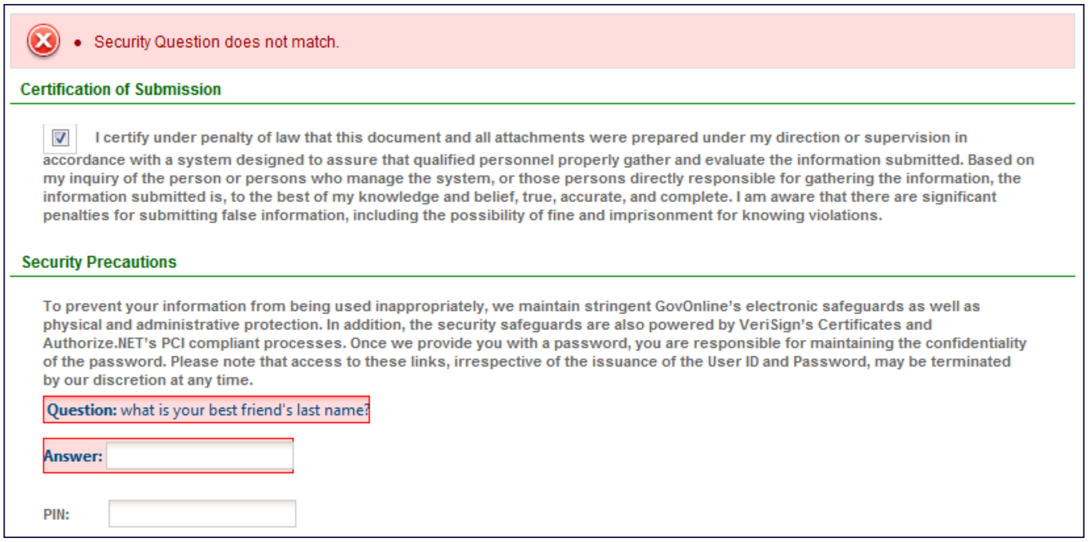


3.3.1.6 Step 4: Submission

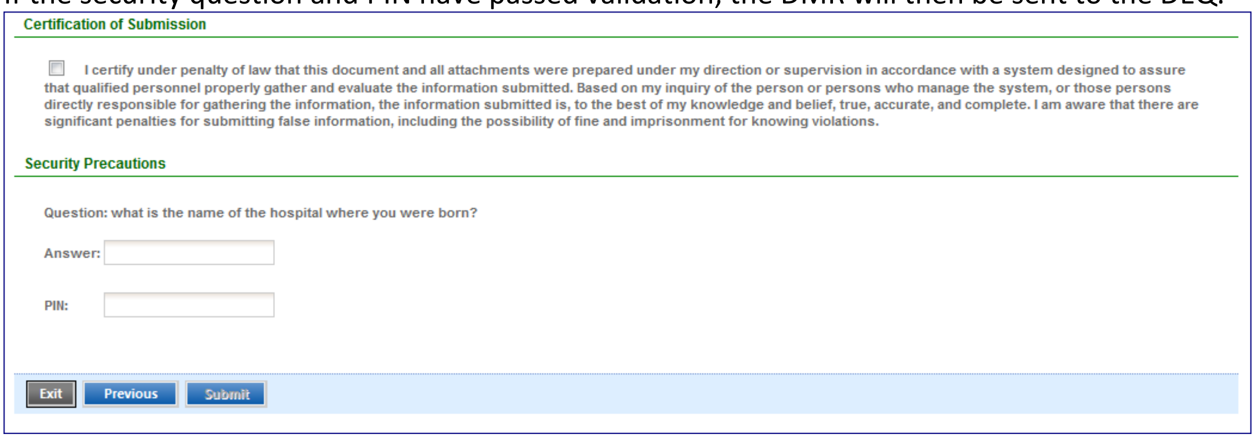
At this stage, the DMR Certifier must read the certification statement, click the checkbox indicating that (s)he has read and understands the certification statement, answer the security questions set in he/she first login, enter his/her PIN, and click the Submit button to submit the results to DEQ.

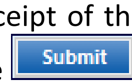
Neglecting to enter the correct PIN, check the Certification of Submission checkbox, or answer the security question correctly will prevent the submission from occurring.

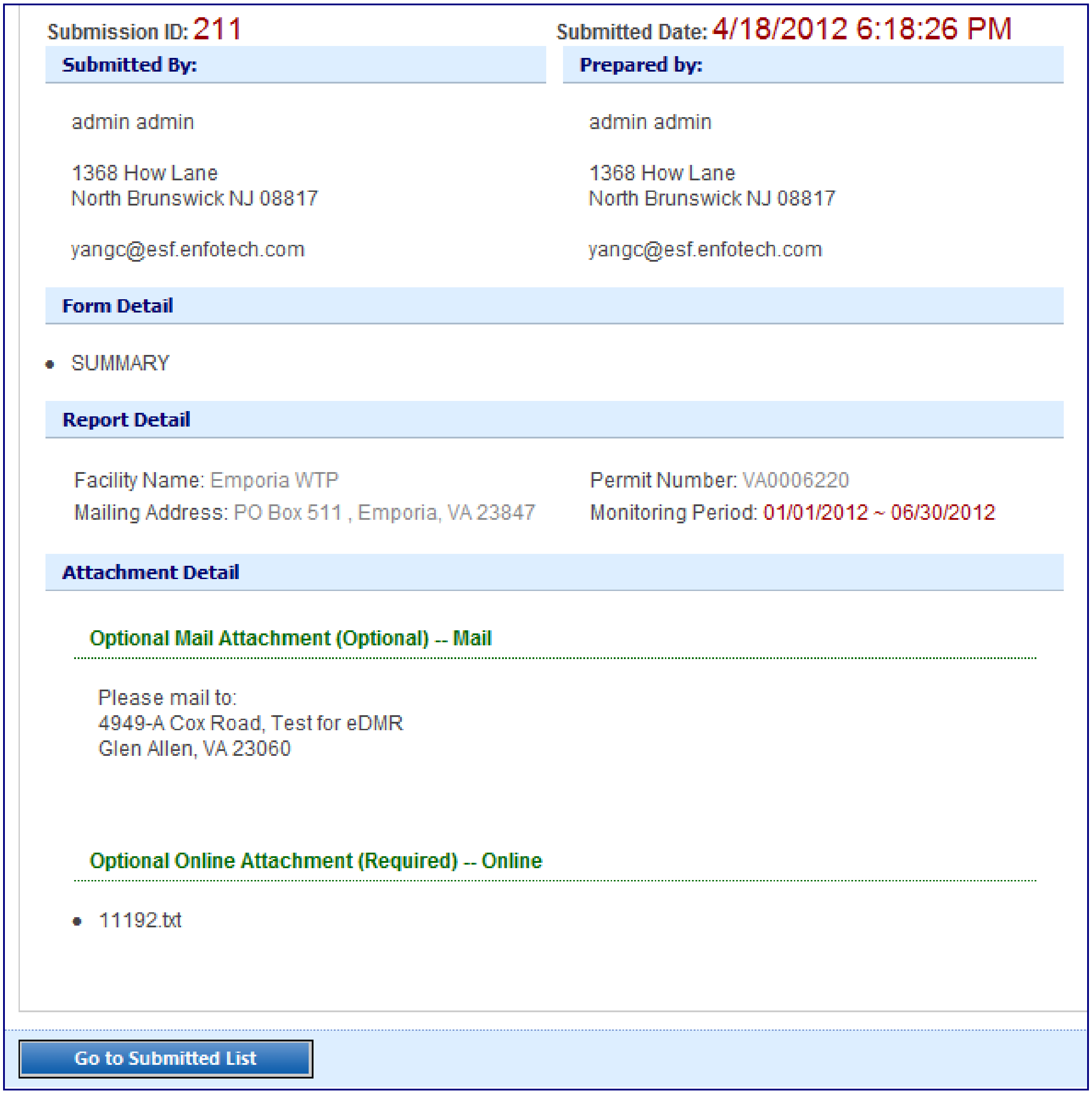
The user has three chances to answer the security questions. If the user provides the wrong answers to the security questions three times (within the same session), the user is no longer allowed to submit the data. When the security questions are suspended, an e-mail will be sent to the user and copied to the DEQ e-DMR Administrator. Once the e-DMR Administrator resets the security questions, the user will be notified via e-mail. The following shows how the system responds when the user provides the wrong answers:



If the security question and PIN have passed validation, the DMR will then be sent to the DEQ.



The user will be taken to a page that confirms receipt of the submission and summarizes the report submitter (name of Certifier who clicked the  button), owner (name of Certifier *or* Preparer who originally created the report), form, and attachment details. Submission ID, Submitted Date, DMR date and Attachment information are available for any submitted DMR."

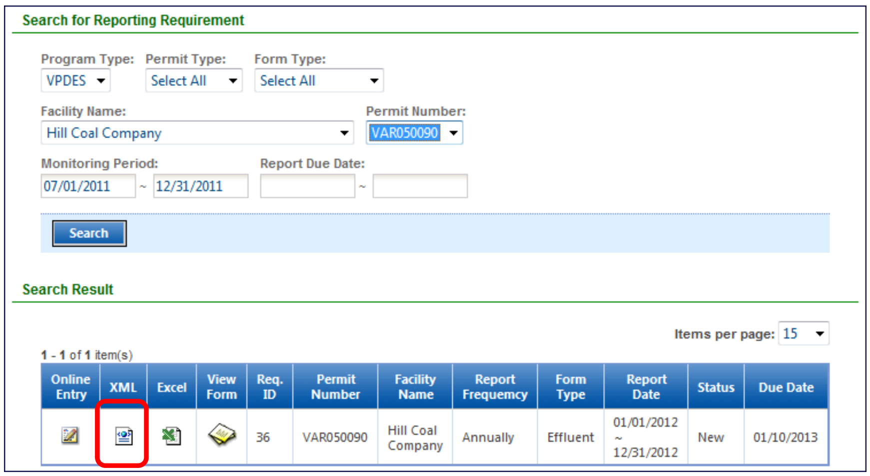


The "Submission ID" is a confirmation number that will be stored in the e-DMR system and should be recorded by the user for future reference. On this page, the user will also have the option of clicking **Go to Submitted List** to be taken directly to the Submitted Report(s) section of the Report Management module. Submission ID, Submitted Date, DMR date and Attachment information are available for any submitted DMR.

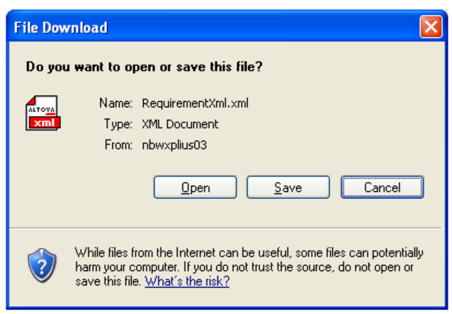
3.3.2 Using the XML File Upload Option

3.3.2.1 Step 1: Downloading and Viewing Reporting Requirements

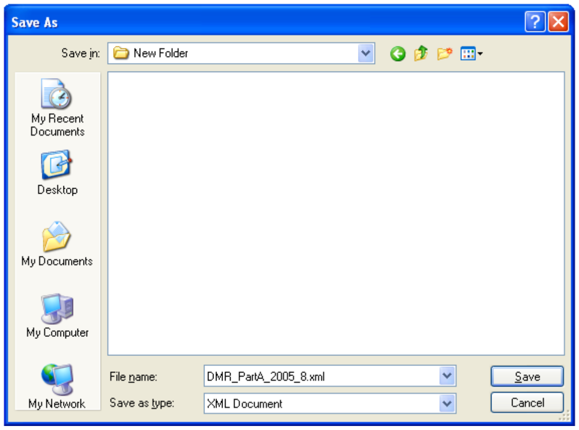
In the previous section, the template, or blank DMR form, was viewed online using the View Form window. If the user is using the XML File Upload submission option, the user can download an XML template of the DMR file by going to the Create a New Report screen and clicking on the XML icon  for the corresponding record:



This will begin a series of message boxes.



To open the file in a new window without saving, click "Open." However, if the user wishes to download the template DMR XML file, he/she should click "Save," at which point the user will be prompted to supply the location to which he/she would like to save the file.



Navigate to the directory wherethe file is to be saved. Once the file location and name have been selected, click “Save.”

The file that is downloaded is an XML file that contains the reporting requirements for the DMR, but does not contain the DMR results.

The readable DMR format displayed in the e-DMR system is created by applying a style sheet to the XML that is being downloaded in this section. This type of style sheet is used to display XML, the language adopted to communicate between environmental facilities and agencies, because it is platform-independent.

Clicking on the XML button or viewing the XML file that is downloaded allows the user to take a peek behind the scenes at the data being displayed.

The following screenshot shows a portion of the XML template file opened using Internet Explorer:

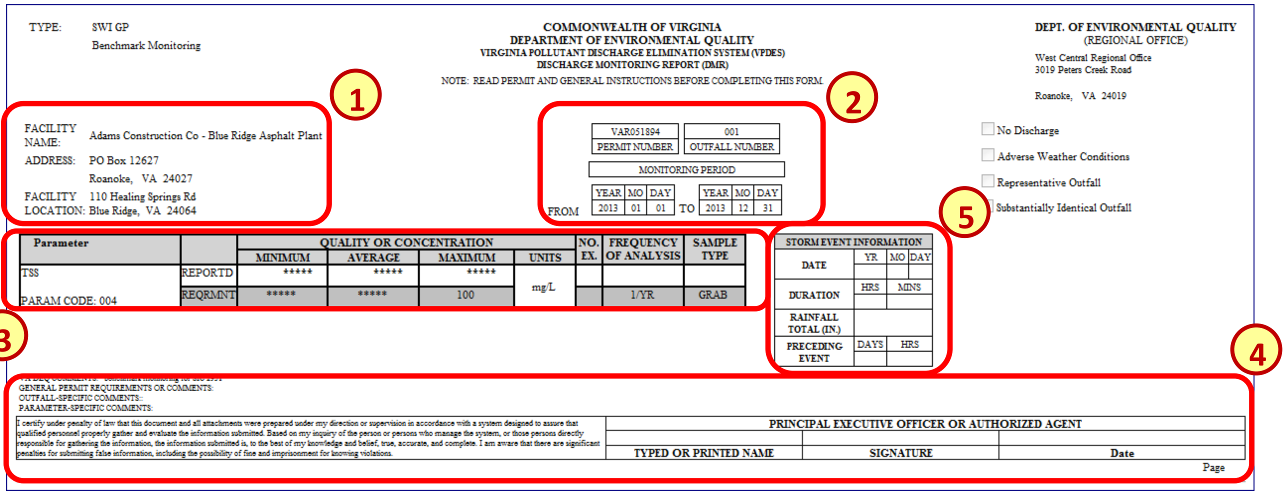
```
  <?xml version="1.0"?>
- <eDMR>
  - <MetaData>
      <SchemaIdentification>e-DMR Schema version 1.4</SchemaIdentification>
      <SchemaDescription>e-DMR Work Group Schema version 1.4</SchemaDescription>
      <SchemaPurpose>Electronic Discharge Monitoring Report submissions</SchemaPurpose>
      <SchemaVersion>1</SchemaVersion>
      <SchemaCreateDate>2002-02-28</SchemaCreateDate>
      <SchemaLastUpdateBy>e-DMR XML Schema Work Group</SchemaLastUpdateBy>
      <SchemaLastUpdateDate>2011-08-30</SchemaLastUpdateDate>
      <SchemaContactInformation>leopard.matthew@epa.gov, and Edmr_support@enfotech.com</SchemaContactInformation>
    </MetaData>
  - <Receiver>
      <AgencyName>State of Virginia Department of Environmental Quality</AgencyName>
      <ReceivercontactName/>
      <ReceivercontactTitle/>
    - <ReceiverMailAddress>
        <MailingAddressText/>
        <SupplementalAddressText/>
        <MailingAddressCityName/>
        <MailingAddressStateUSPSCode>VA</MailingAddressStateUSPSCode>
        <MailingAddressStateName>Virginia</MailingAddressStateName>
        <MailingAddressCountryName>United States</MailingAddressCountryName>
        <MailingAddressZIPCode/>
      </ReceiverMailAddress>
    </Receiver>
  - <Sender>
      <SenderName/>
    - <SenderPhoneFaxEmail>
        <TelephoneNumber/>
```

For a clearer picture of the structure of the XML file and how it relates to the standard DMR format, collapse the following data elements, which are shown in red text above and enveloped by < >, by clicking on the (-): MetaData, Receiver, Sender, FacilityIdentification, ReportIdentification, LocationGroupIdentification, Certification, and MonitoringData.


```
<eDMR>
  <MetaData>
  <Receiver>
  <Sender>
  <Submission submissionID="" submissionFileName="" submissionFileCreatedDate="" submissionComment="">
    <Facility>
      <FacilityIdentification stateFacilitySystemAcronymName="VA e-DMR" stateFacilityIdentifier="200000196224">
      <Report>
        <ReportIdentification>
        <MonitoringLocationGroup monitoringLocationName="001">
          <LocationGroupIdentification monitoringLocationName="001">
          <MonitoringData>
            <ParameterIdentification>
            <Laboratory>
            <SummaryofMonitoringResult>
            <SummaryofMonitoringResult>
            <SummaryofMonitoringResult>
            <SummaryofMonitoringResult>
            <SummaryofMonitoringResult>
          </MonitoringData>
          <MonitoringData>
          <MonitoringData>
        </MonitoringLocationGroup>
        <OperationalData>
      </Report>
    </Facility>
    <Certification>
    <Attachments>
  </Submission>
</eDMR>
```


Now that the structure is well defined, the form can be examined piece-by-piece to see exactly where the data presented using the style sheet is, in relationship to the entire XML e-DMR file.

The following images highlights specific sections of the DMR and assigns a section number to it. The XML is then displayed with the corresponding section number on the following pages.



TYPE: SWI GP
Benchmark Monitoring

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES)
DISCHARGE MONITORING REPORT (DMR)
NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)
West Central Regional Office
3019 Peters Creek Road
Roanoke, VA 24019

1

FACILITY NAME: Adams Construction Co - Blue Ridge Asphalt Plant
ADDRESS: PO Box 12627
Roanoke, VA 24027
FACILITY LOCATION: 110 Healing Springs Rd
Blue Ridge, VA 24064

2

VAR051894 — PERMIT NUMBER
001 — OUTFALL NUMBER
MONITORING PERIOD
FROM YEAR 2013 MO 01 DAY 01 TO YEAR 2013 MO 12 DAY 31

No Discharge
Adverse Weather Conditions
Representative Outfall
Substantially Identical Outfall

5

3

Parameter		QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		MINIMUM	AVERAGE	MAXIMUM	UNITS			
TSS	REPORTD	*****	*****	*****	mg/L			
PARAM CODE: 004	REQRMNT	*****	*****	100			1/YR	GRAB

STORM EVENT INFORMATION			
DATE	YR	MO	DAY
DURATION	HRS	MINS	
RAINFALL TOTAL (IN.)			
PRECEDING EVENT	DAYS	HRS	

4

GENERAL PERMIT REQUIREMENTS OR COMMENTS:
OUTFALL-SPECIFIC COMMENTS::
PARAMETER-SPECIFIC COMMENTS:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		
TYPED OR PRINTED NAME	SIGNATURE	Date

Page

1. Section 1


```xml
<FacilityIdentification stateFacilitySystemAcronymName="VA e-DMR" stateFacilityIdentifier="200000095862">
  <FacilitySite>
    <FacilitySiteName>Adams Construction Co - Blue Ridge Asphalt Plant</FacilitySiteName>
    <FacilityDistrictName />
    <FacilityRegistryIdentifier>200000095862</FacilityRegistryIdentifier>
  </FacilitySite>
  <FacilityRegionOffice>
  <LocationAddress>
    <LocationAddressText>110 Healing Springs Rd</LocationAddressText>
    <SupplementalLocationText />
    <LocalityName>Blue Ridge</LocalityName>
    <CountyName />
    <StateName>VA</StateName>
    <CountryName>U.S.A.</CountryName>
    <LocationZIPCode>24064</LocationZIPCode>
    <LocationDescriptionText>Rt 460 and SR 805</LocationDescriptionText>
  </LocationAddress>
  <MailingAddress>
    <MailingAddressText>PO Box 12627</MailingAddressText>
    <SupplementalAddressText />
    <MailingAddressCityName>Roanoke</MailingAddressCityName>
    <MailingAddressStateName>VA</MailingAddressStateName>
    <MailingAddressZIPCode>24027</MailingAddressZIPCode>
  </MailingAddress>
</FacilityIdentification>
```

2. Section 2


```
<ReportIdentification>
  <PermitNumber>VAR051894</PermitNumber>
  <StatePermitNumber />
  <PermitteeName />
  <ProgramType>VPDES</ProgramType>
  <PermitType>GP_SWI</PermitType>
  <FormType>B</FormType>
  <FacilityLimitType />
  <ReportTransactionID />
  <FormComment />
  <FacilityReportGroup />
  <ReportReferenceID>725</ReportReferenceID>
  <ReportStartDate>2013-01-01</ReportStartDate>
  <ReportEndDate>2013-12-31</ReportEndDate>
  <ReportFrequency>Annually</ReportFrequency>
  <GeneralReportComment />
  <DueDate>2014-01-10</DueDate>
  <ReportCreateDate />
  <OriginalOrRevision />
  <AgencyComment>impaired water monitoring for impairment L04R-01-BEN</AgencyComment>
</ReportIdentification>
```


3. Section 3

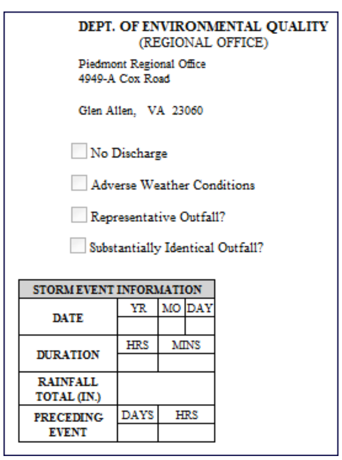

```
<MonitoringLocationGroup monitoringLocationName="001">
  <LocationGroupIdentification monitoringLocationName="001">
  <MonitoringData>
    <ParameterIdentification>
    <Laboratory>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
  </MonitoringData>
</MonitoringLocationGroup>
```

4. Section 4


```
<OperationalData>
  <RepresentativeName />
  <ResponsibilityArea />
  <Title />
  <RepresentativeContactInfo>
    <EmailAddressText />
    <TelephoneNumber />
    <PhoneExtension />
    <FaxNumber />
    <AlternateTelephoneNumber />
  </RepresentativeContactInfo>
  <CertificationCategory />
  <CertificationNumber />
  <OperatorRequiredInd>N</OperatorRequiredInd>
</OperationalData>
</Report>
</Facility>
<Certification>
  <CertificationStatement>
  <Certifier />
  <CertifierTitle />
  <CertifierContactInfo>
    <TelephoneNumber />
  </CertifierContactInfo>
  <CertificationDate />
  <PIN />
</Certification>
```


5. Section 5

For SWI permit types, there is an additional section: the outfall checkboxes (Representative Outfall, Substantially Identical Outfall, No Discharge, and Adverse Weather Conditions) and Storm Event Information.


DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060

☐ No Discharge
☐ Adverse Weather Conditions
☐ Representative Outfall?
☐ Substantially Identical Outfall?

STORM EVENT INFORMATION			
DATE	YR	MO	DAY
DURATION	HRS	MINS	
RAINFALL TOTAL (IN.)			
PRECEDING EVENT	DAYS	HRS	


```
<NoDischargeIndicator/>
<StormWaterEvent>
    <AdverseWeatherConditionIndicator/>
    <RepresentativeIndicator/>
    <SubstantiallyIdenticalIndicator/>
    <RepresentativeMonitoringLocationName/>
    <StormEventDate/>
    <StormEventDurationHours/>
    <StormEventDurationMins/>
    <StormEventTotalRainfall/>
    <StormEventPrecedeEventDays/>
    <StormEventPrecedeEventHours/>
```

Please note that the data that is populated in the template XML file and used for the preview can be thought of as the data that is needed to create a blank DMR form, ready to be filled out by the corresponding facility. All data that is in the pre-populated template file has been drawn from the DEQ database to simplify reporting for the facility and to increase accuracy. Since this is the template file, or the blank DMR form, these values will be populated with actual reporting data once the submission XML file has been created by the facility.

3.3.2.2 Step 2: Result Data Population

A variety of commercially available software can be used to populate the XML template file that is downloaded from the e-DMR system. A simple text editor such as Notepad or WordPad can be used, or targeted XML data entry software such as Altova XML Spy. However, DMR facilities that prefer the XML submission option typically make this choice because they can configure their existing DMR tracking software to output or convert their DMR results automatically to the e-DMR XML schema format. If your software can be configured or customized to output XML files automatically in the e-DMR format, then this submission option may be the preferred option.

Regardless of the approach used to populate the XML file, the following elements in the XML file will need to be populated prior to submitting the file:

Field	Description	XML Path
ReportStartDate	The first date of the monitoring period.	<Submission> <Facility> <Report> <ReportIdentification> <ReportStartDate>
ReportEndDate	The last date for the monitoring period.	<Submission> <Facility> <Report> <ReportIdentification> <ReportEndDate>
SubmissionFileCreatedDate	The date on which the XML file has been created.	<Submission>
DueDate	The date on which the DMR is due.	<Submission> <Facility> <Report> <ReportIdentification> <DueDate>
ReportCreateDate	The date on which the XML file has been created.	<Submission> <Facility> <Report> <ReportIdentification> <ReportCreateDate>

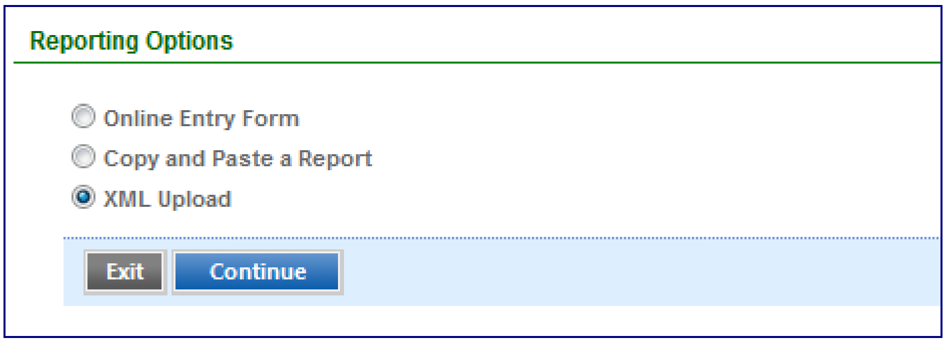
MonitoringStartDate	The first date of the monitoring period.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <MonitoringStartDate>
MonitoringEndDate	The last date for the monitoring period.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <MonitoringEndDate>
CertificationDate	The date on which the file is being uploaded to the state (i.e. certified for accuracy and completeness)	<Submission> <Certification> <CertificationDate>
NoDischargeIndicator	Indicates whether there was no discharge at the outfall during the monitoring period. (Specify Y if there was no discharge; N if there was a discharge.)	<Submission> <Facility> <Report> <MonitoringLocationGroup> <LocationGroupIdentification> <NoDischargeIndicator>
AdverseWeatherConditionIndicator RepresentativeIndicator SubstantiallyIdenticalIndicator	Indicates whether there were adverse weather conditions at the outfall during the monitoring period, whether the outfall is representative, or whether the outfall is substantially identical to another one. Only one, if any, may be marked Y; the others must be N.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <LocationGroupIdentification> <StormWaterEvent> <AdverseWeatherConditionIndicator> <RepresentativeIndicator> <SubstantiallyIdenticalIndicator>
StormWaterEvent	Used to provide storm event information: date, duration, total rainfall, and preceding event.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <LocationGroupIdentification> <StormWaterEvent>
MeasurementValue	Used to provide the value for the concentration minimum, concentration	<Submission> <Facility> <Report>

	maximum, concentration average, loading maximum, or loading average result.	<MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <MeasurementValue>
QCExceedance	Indicates the number of excursions for a particular parameter. Note: This field is required in all cases except when there are no limits for that parameter. Only the 1st instance of the 5 blocks of SummaryofMonitoringResult need to be filled in; it is the 1st instance that is used by the e-DMR system.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <QCExceedance>
ActualSampleFrequency	Indicates the actual sample frequency for each parameter on the DMR	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <ActualSampleFrequency>
ActualSampleType	Indicates the actual sample type for each parameter on the DMR	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <ActualSampleType>
RepresentativeName	This field is used to supply the operator in responsible charge. This data element is only required if the facility is required to report operator information.	<Submission> <Facility> <Report> <OperationalData> <RepresentativeName>
CertificationNumber	This field is used to supply the Operator Certification number. This data element is only required if the facility is required to report	<Submission> <Facility> <Report> <OperationalData> <CertificationNumber>

	operator information.	

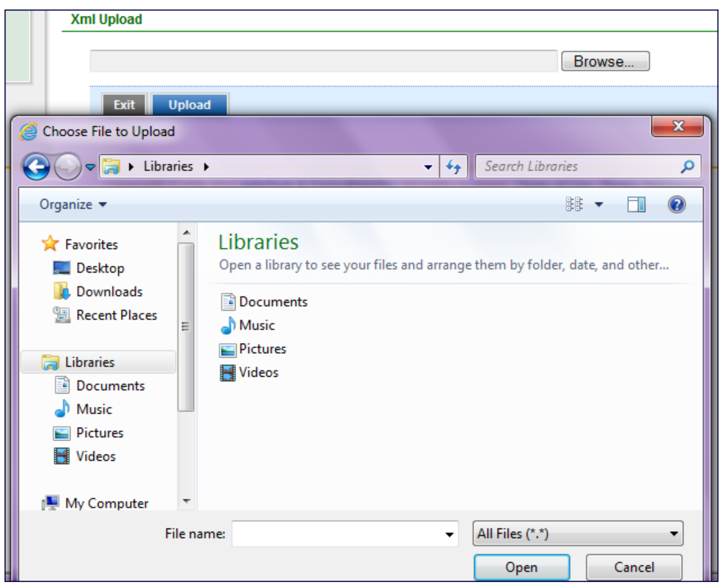
3.3.2.3 Step 3: Upload

Once an XML file has been generated and saved locally, the file can be submitted to the e-DMR System. Submitted files can be viewed by regulatory agencies and accessed for future reference. To submit the XML file, click on the Online Entry icon  for the corresponding record, which will bring up the following page:



Select the "XML Upload" radio button and click 

.

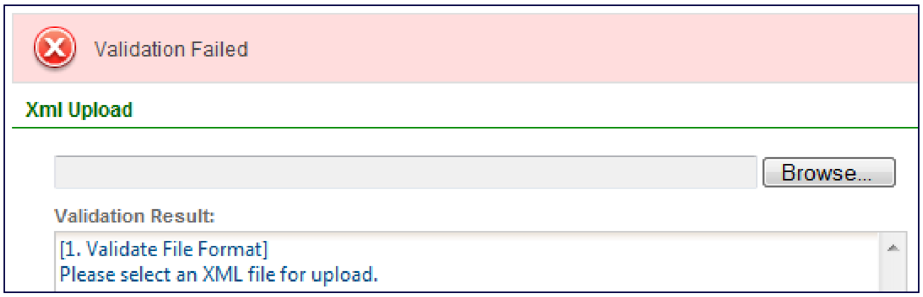


To select the XML file, click on the "Browse" button. This will bring up the Choose File message box. Browse through the local file directory, and select the file to be uploaded.

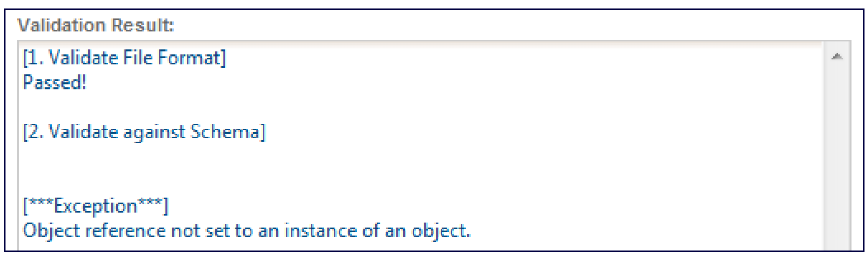
Note that the file selected must be a valid XML file. If the file does not have an .xml extension, an error will occur. Also, the file must be an e-DMR schema instance document that must comply with the national e-DMR XML schema file format. A copy of this file format and specifications can be found at the EPA/State Exchange Network website at http://www.exchangenetwork.net. The file must comply with the naming conventions of the data elements, order of the data elements, and data element data type definitions.

Once the file has been selected, click the Upload button. The system will run a validation check and display an error if there is something wrong with the file. Listed below are the most common errors:

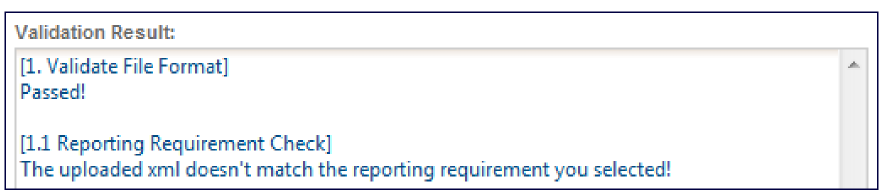
1. The file is not in XML format – for example, the submission file is in Word format:



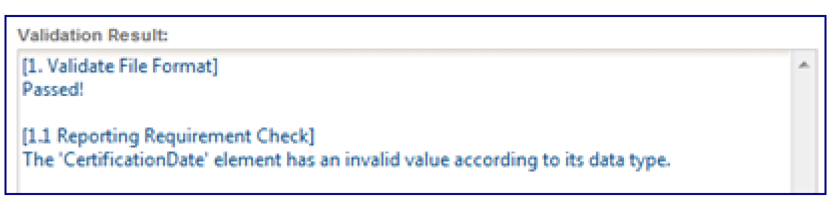
2. The file is in valid format, but it is not well defined:



3. The file is in a valid format, but not the correct e-DMR type. For example, if the XML file for the wrong report is submitted, then the error message will be:



4. The file is in valid format and correct type, but with some errors, in which case the detailed error messages will be displayed. For example, in the submission XML file, an invalid date was input. The following error message will be generated:



Other potential error messages:

Error Message	Potential Cause
No reporting requirement can be found in E2 associated with this XML file.	E2 is not expecting a DMR with the specified start date and end date for this facility. This error is usually encountered when the ReportStartDate and ReportEndDate elements are not specified.
The "<" character cannot be included in the name…	This is usually caused by not having the XML file conform to the XML schema, either by having an extra "<" or ">" or omitting an "<" or ">"
The 'date' element is invalid – The value '' is invalid according to its datatype.	XML requires that all date fields be supplied. This error message indicates that some date field in the XML field has not been filled in.
{elementName} is required	A required field in the XML file (from the table above) was not specified.

The user can correct the errors, and resubmit the file. If the test is successful, the page will indicate that the submission has passed validation.

3.3.2.4 Step 4: Attachment

This step is identical to the Attachment step for the online data entry method. For further details, please refer to Section 3.2.1.4: Attachment.

3.3.2.5 Step 5: Validation

This step is identical to the Validation step for the online data entry method. For further details, please refer to Section 3.2.1.5: Validation.

3.3.2.6 Step 6: Submission

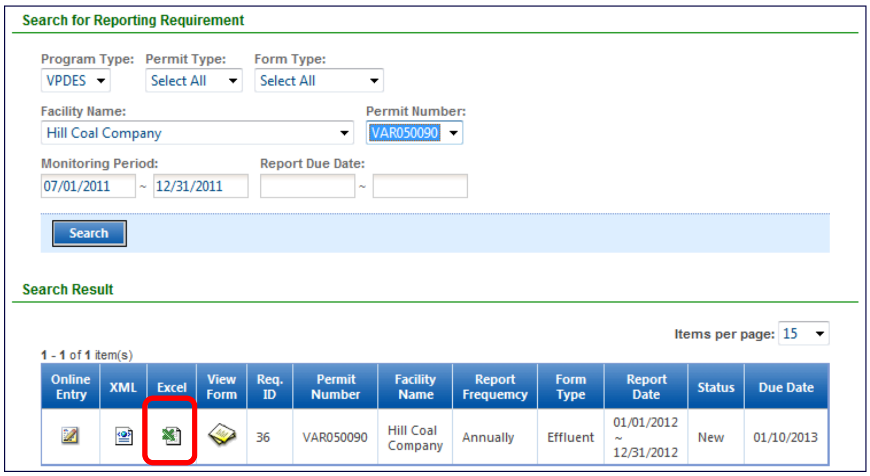
This step is identical to the Submission step for the online data entry method. For further details, please refer to Section 3.2.1.6: Submission.

3.3.3 Using the Excel Copy-and-Paste Feature

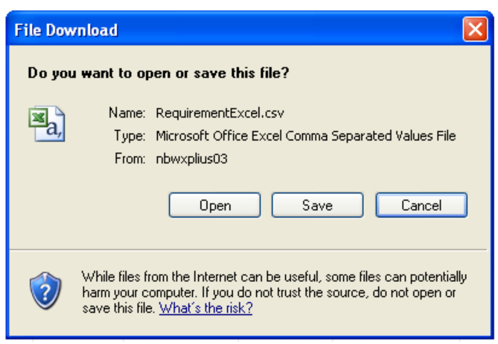
In many cases, a facility may store its DMR data electronically in a common spreadsheet software application, such as Microsoft Excel. To blend the simplicity of the web form with the ease-of-use of commonly used spreadsheet programs, there is a copy-and-paste feature available on the DMR web form.

3.3.3.1 Step 1: Downloading Reporting Requirements

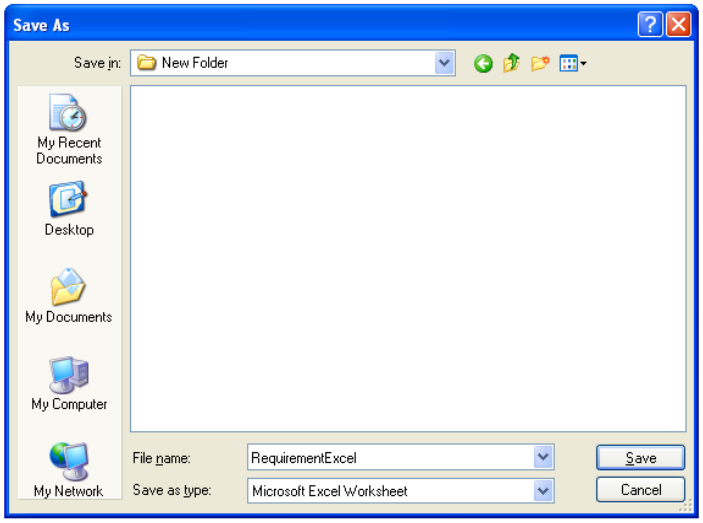
To download a DMR template file in Excel file format, return to the Create a New Report screen and click on the Excel icon  for the corresponding record:



This will begin a series of message boxes.



To open the file in a new window without saving, click "Open." Alternately, the user should click "Cancel" if he or she does not wish to save or open the file. However, if the user wishes to download the template DMR Excel file, he/she should click "Save," at which point the user will be prompted to respond with the location he/she wishes to save the file in.



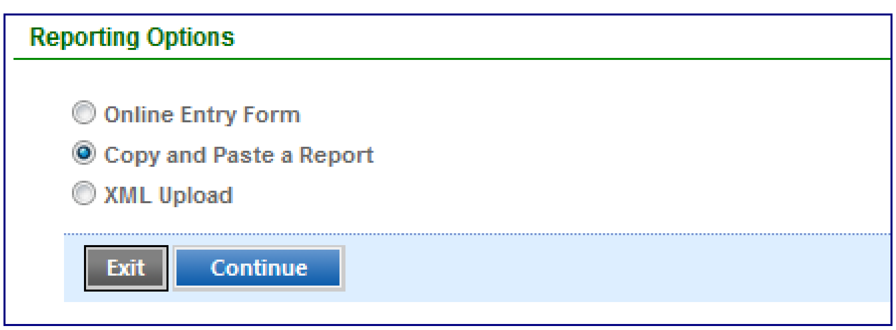
The template DMR Excel file is a Comma Separated Value (CSV) file that can be read by Microsoft Excel and other spreadsheet programs. This file contains a listing of the parameters on the left-hand side and the heading of the columns of the DMR form across the top. The facility user can then begin using this Excel spreadsheet to enter in DMR results.

3.3.3.2 Step 2: Filling out the DMR Form

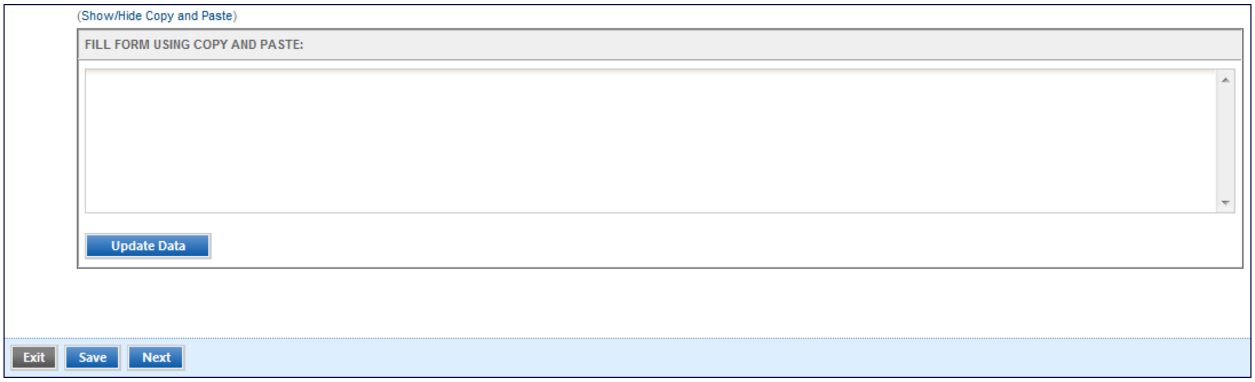
The CSV file that is downloaded from the e-DMR system can be opened by Excel and most other spreadsheet programs. Once this file is opened, it can be edited in any way as seen fit by the facility, but the **order of the columns should not be modified**. This is because, in Step 3, the data will be copied from the Excel file and pasted back into the e-DMR system web form, which will expect the data in the same order in which it was downloaded.

3.3.3.3 Step 3A: Result Data Population

Once the facility user is finished filling out the Excel spreadsheet, he/she can return to the e-DMR system and go to the Create a New Report screen to submit the report. To access the DMR web form, click on the Online Entry icon for the corresponding record, which will bring up the following page:



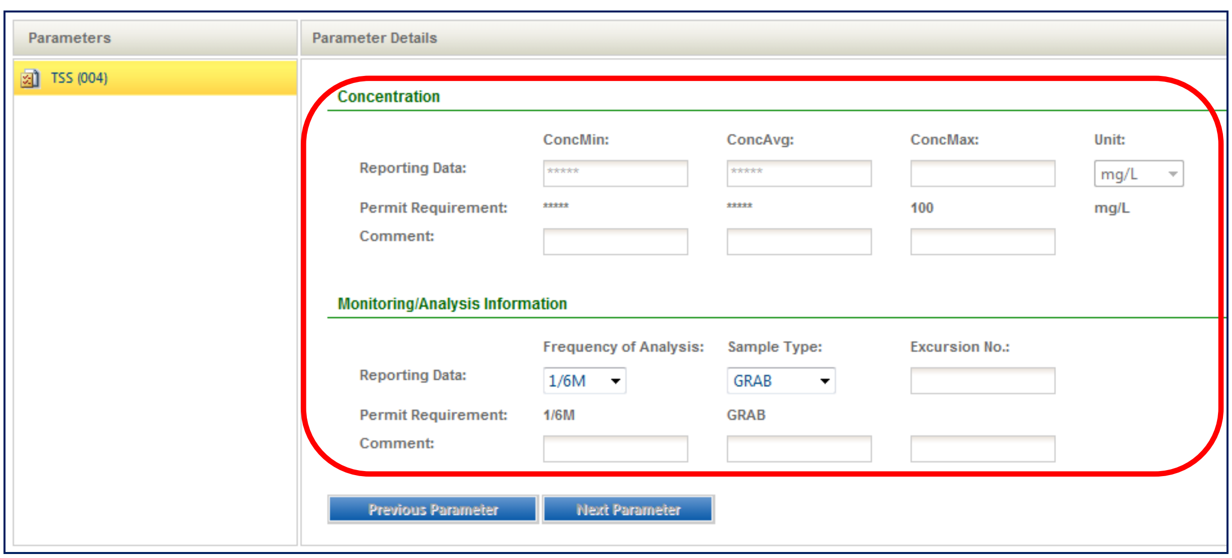
Select the "Copy and Paste a Report" option and click Continue to open the following page:



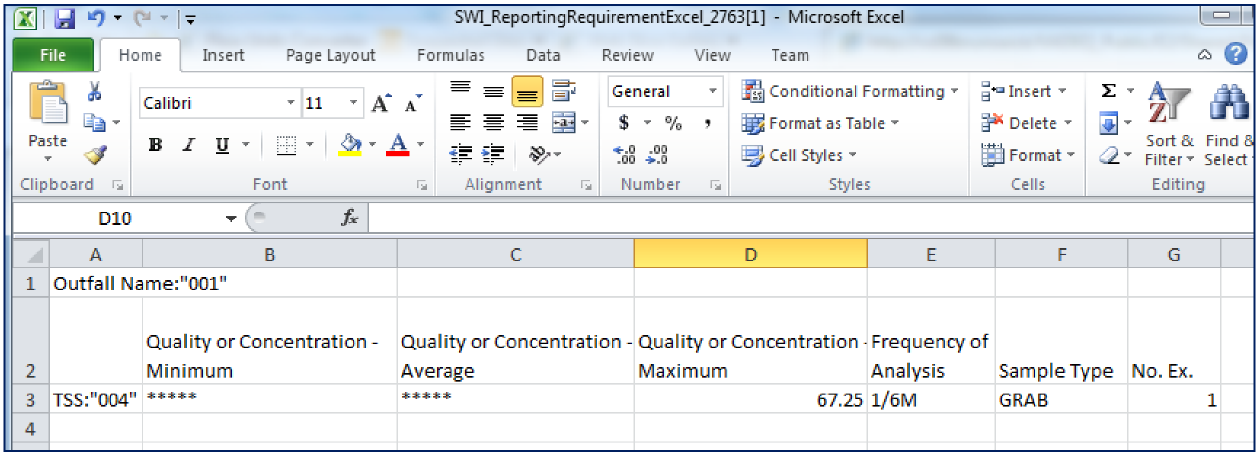
This is the same as the Online Entry page, but the user is brought to a textbox at the bottom for copying in data. Copying and pasting data allows for standardization of data, reducing the degree of error that may occur by retyping the data. To use the copy and paste conversion tool, there are a couple rules that must be followed:

1. The order of the parameters in each row and the order of columns of the locally saved spreadsheet must be in the same order as those on the DMR Data web form.
2. Only the body of the DMR form may be copied (e.g., the area where data/values have been entered). This does not include the parameter row headings, columns headings, operator section, or comments section. The data/values must be entered manually or the data/values can be auto-populated (e.g., relationship formulae) from the user's data summary EXCEL file, or other common spreadsheet software application.

Looking first at rule #1, examine the web form parameters, paying attention to their order as listed across the page. The following figure zooms in on this area:



Next, open the spreadsheet software that stores the DMR data. Verify that the parameters listed are the same as those on the web form, and that the order matches exactly (which will be true by default). This may take some time to set up, but it need only be done once. Multiples templates may be required for DMRs of different outfalls, reporting types or monitoring periods. The following image illustrates this:

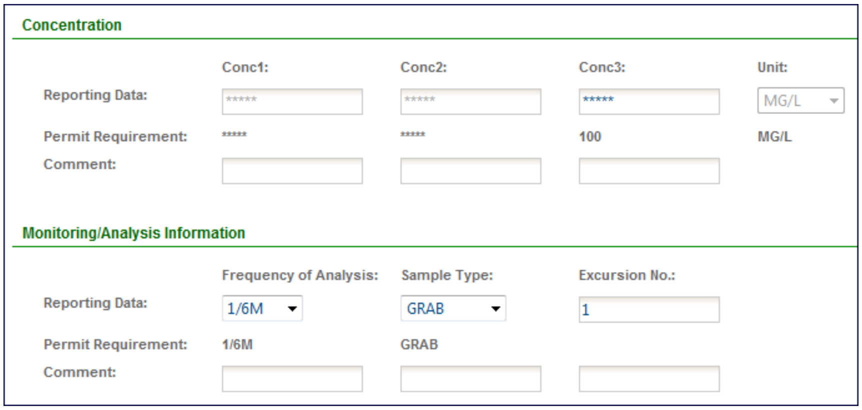


In this case, the parameters are identical and in the same order, and the column order is the same across the top of the spreadsheet. Note that only the data itself is selected; make sure that the parameters, column headers, or extra columns to the right are *not* selected and copied.

Back in the e-DMR system, paste the report inside of the text box beneath the Copy and Paste box.

This will paste the tab delimited data that had been copied from the locally saved spreadsheet. Click 

to view the results in the Online Entry form:



Note: If the permit contains multiple outfalls, only one outfall can be pasted at a time. Use the "Outfall" drop-down menu to change outfalls and be able to paste in the data for each one, until all outfalls are populated.

Complete the DMR web form by filling in the other fields that could not be pasted, such as comments. For detailed instructions on filling out the online entry form, please refer to Section 3.2.1.2: Application.

3.3.3.4 Step 3B: General Report Comments and Explanation

This step is identical to the General Report Comments and Explanation step for the online data entry method. For further details, please refer to Section 3.2.1.3: General Report Comments and Explanation.

3.3.3.5 Step 4: Attachment

This step is identical to the Attachment step for the online data entry method. For further details, please refer to Section 3.2.1.4: Attachment.

3.3.3.6 Step 5: Validation

This step is identical to the Validation step for the online data entry method. For further details, please refer to Section 3.2.1.5: Validation.

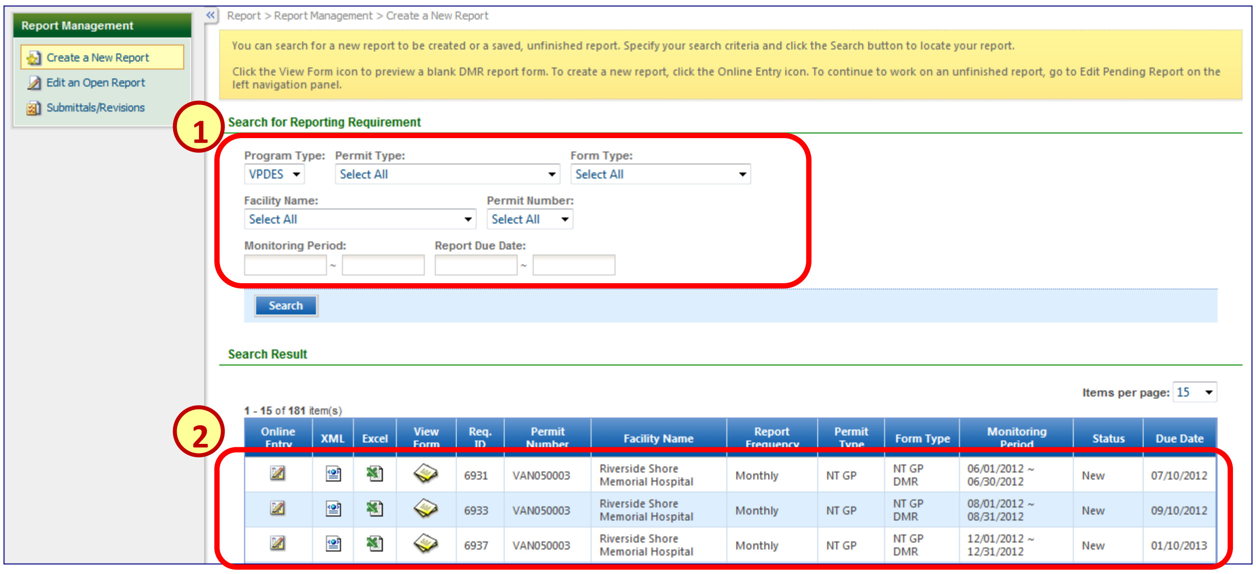
3.3.3.7 Step 6: Submission

This step is identical to the Submission step for the online data entry method. For further details, please refer to Section 3.2.1.6: Submission.

3.4 Creating a New Nutrient Trading (NT) General Permit Report

The Nutrient Trading General Permit module is another new feature of the current eDMR application. Please use the following diagram for identifying sections and for entering in DMR results for this report type:

To begin filling out a report using any of the three options above, the user will want to first click on the Create a New Report link in the Report Management functional area to the left, which will bring up the Create a New Report screen, as shown below:



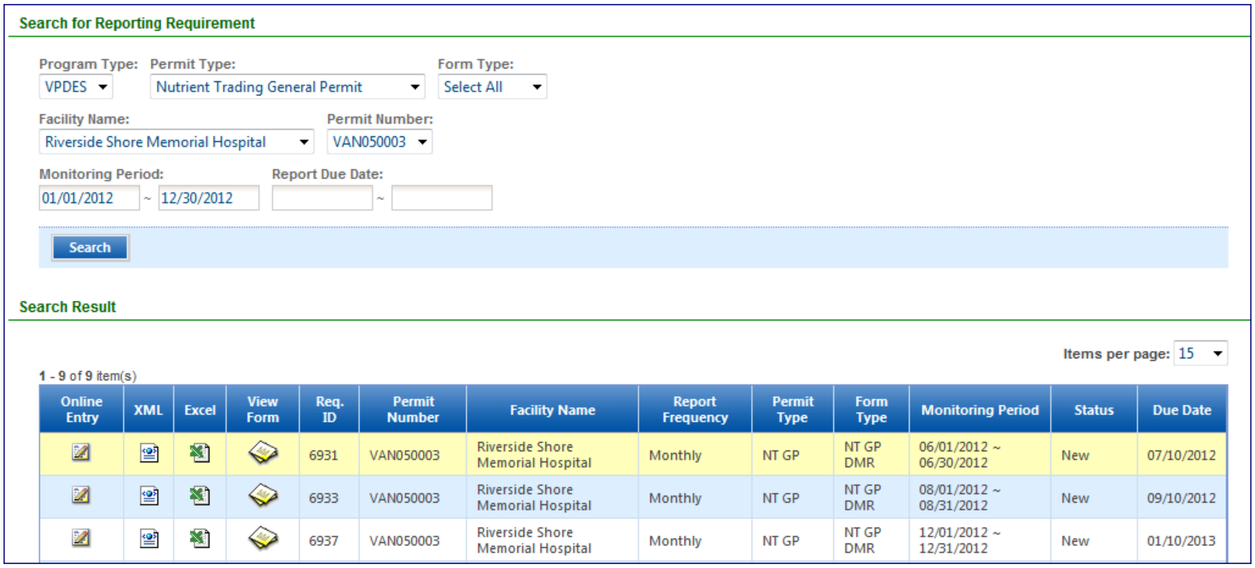
Online Entry	XML	Excel	View Form	Req. ID	Permit Number	Facility Name	Report Frequency	Permit Type	Form Type	Monitoring Period	Status	Due Date
				6931	VAN050003	Riverside Shore Memorial Hospital	Monthly	NT GP	NT GP DMR	06/01/2012 ~ 06/30/2012	New	07/10/2012
				6933	VAN050003	Riverside Shore Memorial Hospital	Monthly	NT GP	NT GP DMR	08/01/2012 ~ 08/31/2012	New	09/10/2012
				6937	VAN050003	Riverside Shore Memorial Hospital	Monthly	NT GP	NT GP DMR	12/01/2012 ~ 12/31/2012	New	01/10/2013

1. By default, this screen will display all DMRs that are due for all facilities at which the user has any kind of role (Certifier/Preparer/Viewer). One row will be displayed for each DMR that must be submitted.

2. To accommodate the possibility that a user may be submitting DMR results for more than one facility, the system allows a user to be associated with multiple facilities.[3] The user can select the registered facility on the drop-down pick list to filter out the DMR reports for that facility. Only those facilities that the user is associated with, whether as a Certifier, Preparer, or Viewer, will be displayed in the drop-down. The user may also choose to filter the DMRs by permit type, form type (i.e., SWI GP permit type only), monitoring date, report due date, and permit number.

After the filtering criteria are entered, the user can click the Search button to filter the results.

[3] Example: an entity or contractor operating and reporting for multiple individual permitted facilities can have appropriately designated users associated with these multiple individual permitted facilities using their existing User name and password.


Search for Reporting Requirement

Program Type: VPDES
Permit Type: Nutrient Trading General Permit
Form Type: Select All
Facility Name: Riverside Shore Memorial Hospital
Permit Number: VAN050003
Monitoring Period: 01/01/2012 ~ 12/30/2012
Report Due Date: ~

Search

Search Result

Items per page: 15

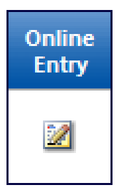
1 - 9 of 9 item(s)

Online Entry	XML	Excel	View Form	Req. ID	Permit Number	Facility Name	Report Frequency	Permit Type	Form Type	Monitoring Period	Status	Due Date
				6931	VAN050003	Riverside Shore Memorial Hospital	Monthly	NT GP	NT GP DMR	06/01/2012 ~ 06/30/2012	New	07/10/2012
				6933	VAN050003	Riverside Shore Memorial Hospital	Monthly	NT GP	NT GP DMR	08/01/2012 ~ 08/31/2012	New	09/10/2012
				6937	VAN050003	Riverside Shore Memorial Hospital	Monthly	NT GP	NT GP DMR	12/01/2012 ~ 12/31/2012	New	01/10/2013

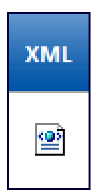
To display all results, simply remove all criteria and click “Search” again.

Each row in the table represents a DMR that must be submitted. In addition to general information about each DMR (such as the Facility for which it applies, the reporting frequency, and reporting period), four reporting function tasks can be performed for each search result.

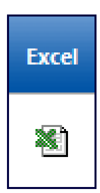
- Enter data through the Online Entry form (used for the online data entry submission method)



- Download a template XML file by clicking on the XML icon (used for the XML file submission method)



- Download a template Excel file by clicking on the Excel icon (used for the Excel copy-and-paste submission method)



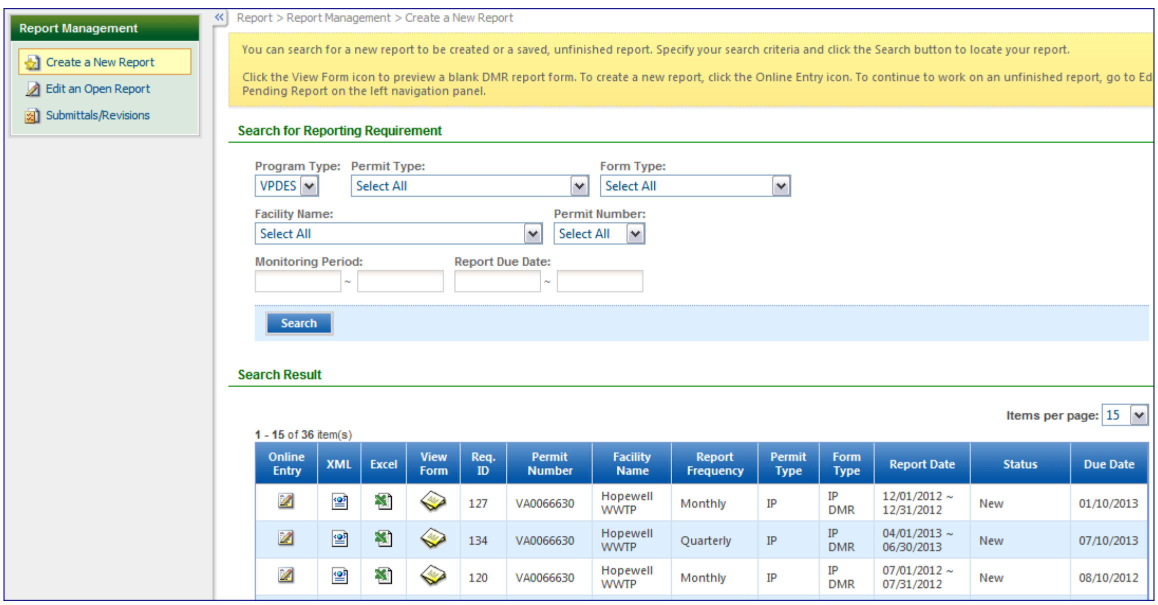
- Preview a reporting requirement by clicking on the View Form icon. This is similar to viewing a blank DMR form that displays the reporting requirements and limits, but it does not yet display the DMR results.

The following sections describe the procedure to submit DMRs using each of the three available submission options.

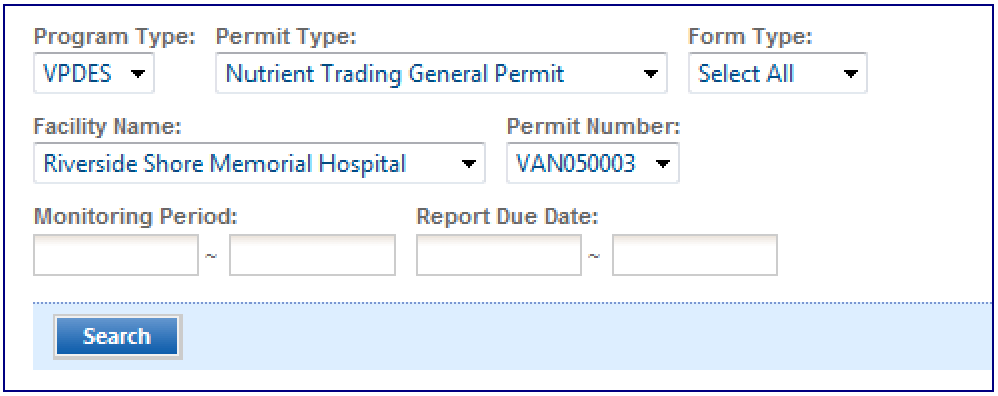
3.4.1 Using the Online Data Entry Feature

To begin to submit a report using the online data entry feature, click on the 

icon in the Report Management functional area to the left, which will bring up the Create a New Report screen, as shown here:



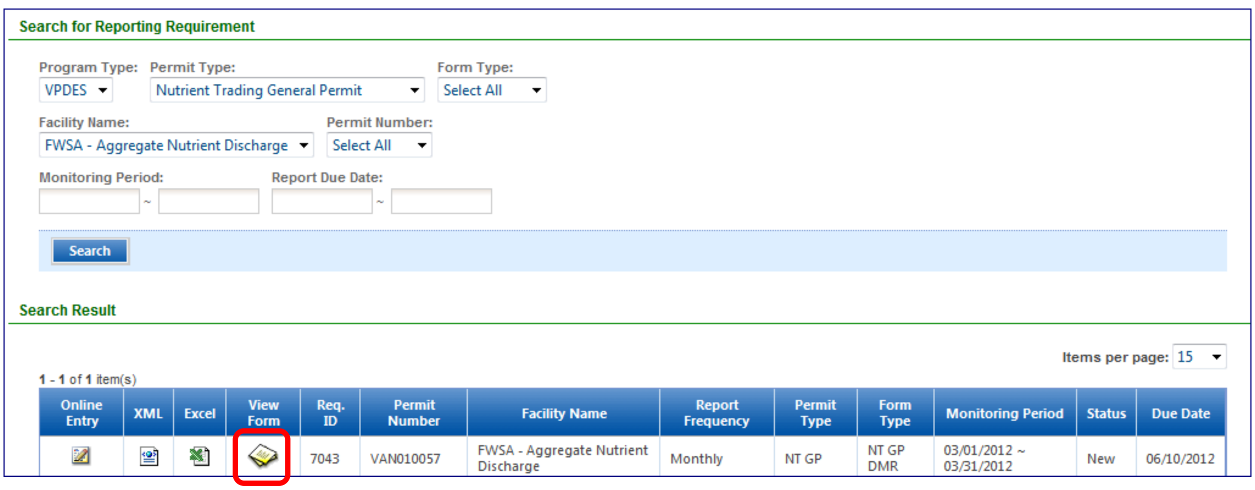
In this case of filling in Nutrient Trading (NT) reports, reports should be filtered by the Permit Type corresponding to "Nutrient Trading General Permit". If desired, the user can further filter the results by selecting a facility and permit number via the drop-down menus.



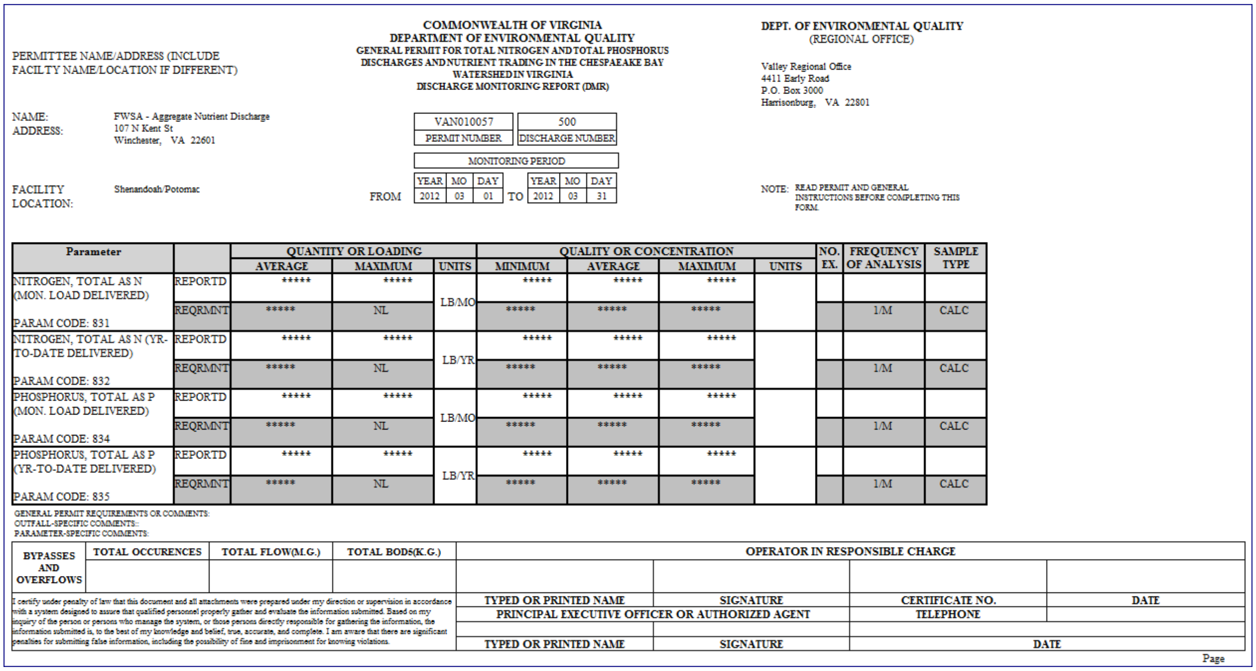
Now that the facility and permit are selected, multiple reporting frequencies may be present for the same facility, such asMonthly or Annual.

3.4.1.1 Viewing Reporting Requirements (Optional)

Before a DMR file (record) is generated, a user may wish to preview and print out the reporting requirements for reference. To preview or print a DMR, click on the View Form icon for the corresponding record.



This will bring up the following pop-up browser that displays the DMR in a format that is very similar to the paper form:



PERMITTEE NAME/ADDRESS (INCLUDE FACILTY NAME/LOCATION IF DIFFERENT)

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
GENERAL PERMIT FOR TOTAL NITROGEN AND TOTAL PHOSPHORUS DISCHARGES AND NUTRIENT TRADING IN THE CHESPAEAKE BAY WATERSHED IN VIRGINIA
DISCHARGE MONITORING REPORT (DMR)

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Valley Regional Office
4411 Early Road
P.O. Box 3000
Harrisonburg, VA 22801

NAME: FWSA - Aggregate Nutrient Discharge
ADDRESS: 107 N Kent St
Winchester, VA 22601

VAN010057	500
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2012	03	01	TO	2012	03	31

FACILITY LOCATION: Shenandoah/Potomac

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

Parameter		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
NITROGEN, TOTAL AS N (MON. LOAD DELIVERED)	REPORTD	*****	*****	LB/MO	*****	*****	*****				
PARAM CODE: 831	REQRMNT	*****	NL		*****	*****	*****			1/M	CALC
NITROGEN, TOTAL AS N (YR-TO-DATE DELIVERED)	REPORTD	*****	*****	LB/YR	*****	*****	*****				
PARAM CODE: 832	REQRMNT	*****	NL		*****	*****	*****			1/M	CALC
PHOSPHORUS, TOTAL AS P (MON. LOAD DELIVERED)	REPORTD	*****	*****	LB/MO	*****	*****	*****				
PARAM CODE: 834	REQRMNT	*****	NL		*****	*****	*****			1/M	CALC
PHOSPHORUS, TOTAL AS P (YR-TO-DATE DELIVERED)	REPORTD	*****	*****	LB/YR	*****	*****	*****				
PARAM CODE: 835	REQRMNT	*****	NL		*****	*****	*****			1/M	CALC

GENERAL PERMIT REQUIREMENTS OR COMMENTS:
OUTFALL-SPECIFIC COMMENTS::
PARAMETER-SPECIFIC COMMENTS:

BYPASSES AND OVERFLOWS	TOTAL OCCURENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)

OPERATOR IN RESPONSIBLE CHARGE

TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	DATE

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

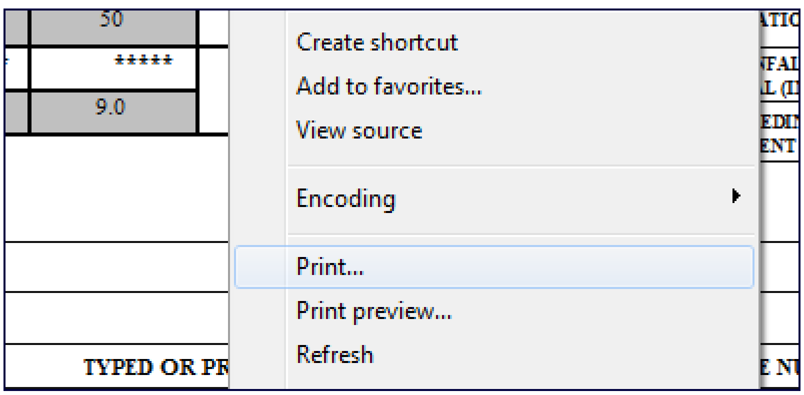
TELEPHONE

TYPED OR PRINTED NAME	SIGNATURE	DATE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

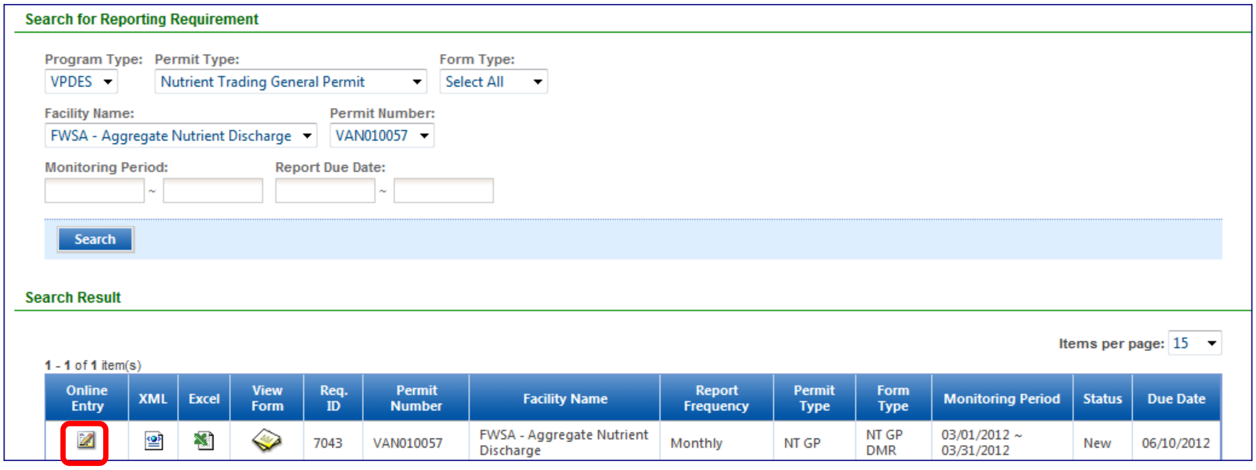
Page

The form at this point is considered a template, since the permit limits and parameters are listed without actual measured values. To print this template, right-click within the pop-up window and select Print, as shown below:

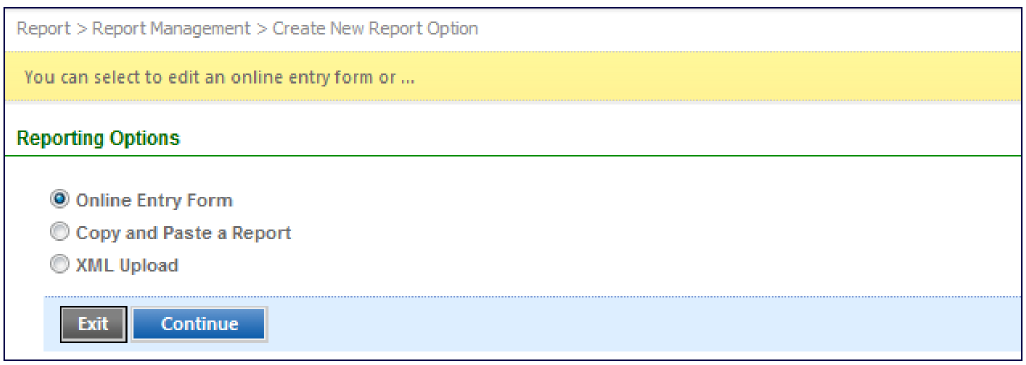


3.4.1.2 Step 1A: Application

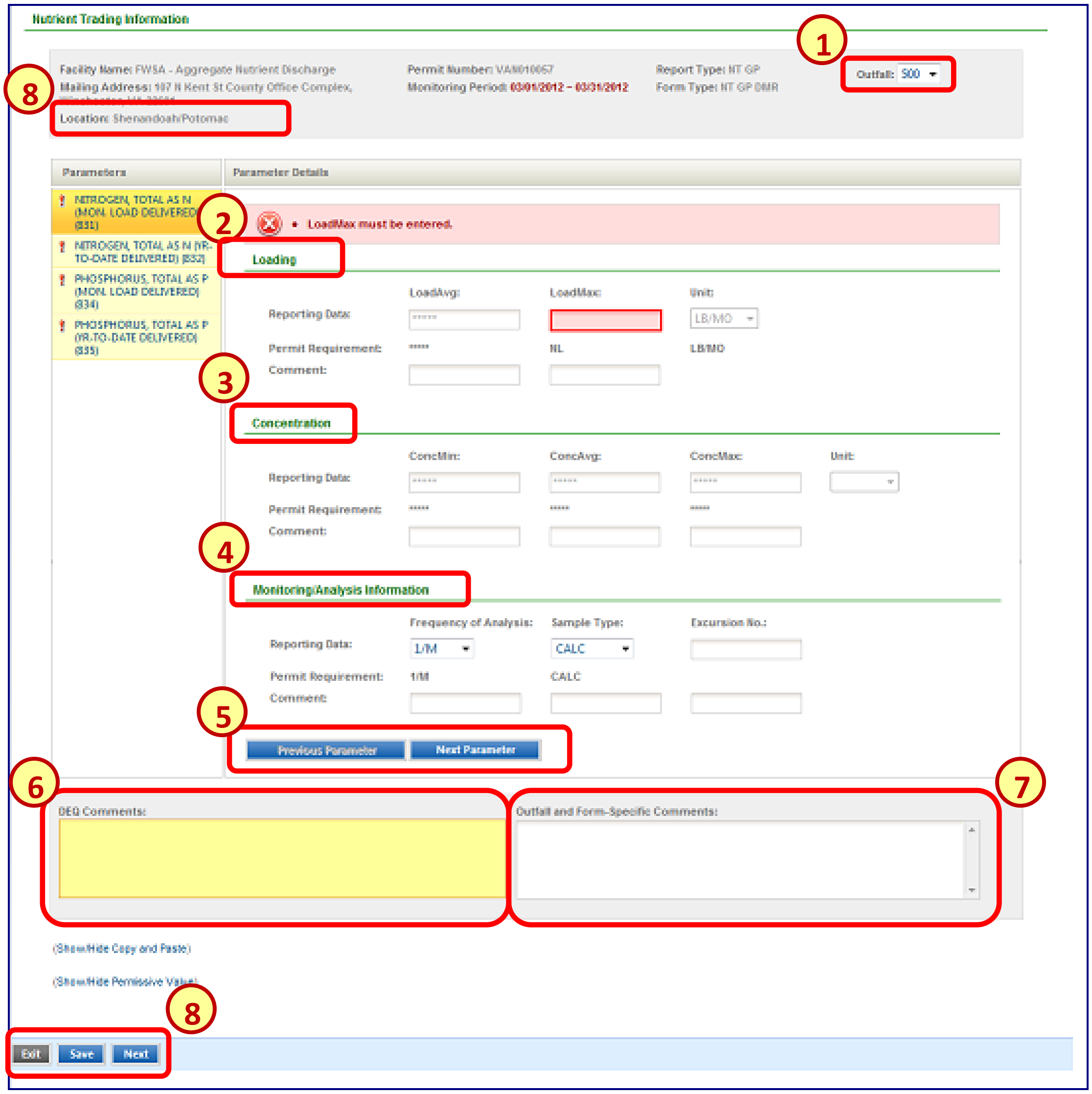
To begin filling out the DMR using the online web form, return to the Create a New Report screen by clicking on the Create a New Report icon in the Report Management functional area to the left. Select the desired facility and permit number using the drop-down menus, and click on the Online Entry icon for the corresponding report frequency and monitoring period.



This will initiate the Report Wizard:



Start the report by choosing a reporting option. To proceed to the online entry form, click “Continue,” which will bring up the online form.



The Online Entry or "web" form is pre-populated with the facility and permit information, report identification, parameter list, and permit limit values. Text fields, checkboxes, and drop-down menus indicate to the user those areas that he/she is expected to fill in.

1. **Navigating among outfalls (i.e. monitoring locations):** One facility may be required to submit a DMRs for multiple outfalls. In order to fill out the DMR form completely for each outfall, use the Outfall drop-down at the top-right corner of the web form.
2. **Loading section:** Enter the loading average and max in the "Reporting Data" row. Be sure to enter an appropriate data value in accordance with the units listed; additional data conversion may be necessary to translate data from a lab report. Units is a protected field that can't be changed.

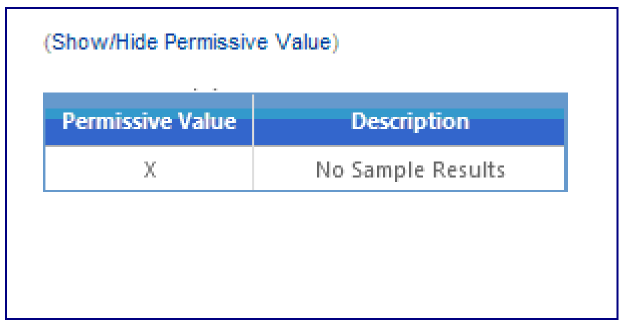
As indicated at the bottom of the page (under the “Show/Hide Permissive Value” link), the “Reporting Data” text fields in the concentration section will accept only the following predefined values:

- Numbers
- “X”: No sample results

3. **Concentration section:** Enter the minimum, average (or monthly average), and/or maximum (or weekly average maximum) in the fields in the “Reporting Data” row. Be sure to enter an appropriate data value in accordance with the units listed; additional data conversion may be necessary to translate data from a lab report.

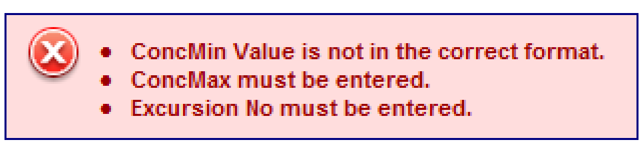
   As indicated at the bottom of the page (under the “Show/Hide Permissive Value” link), the “Reporting Data” text fields in the concentration section will accept only the following predefined values:

   - Numbers
   - “X”: No sample results

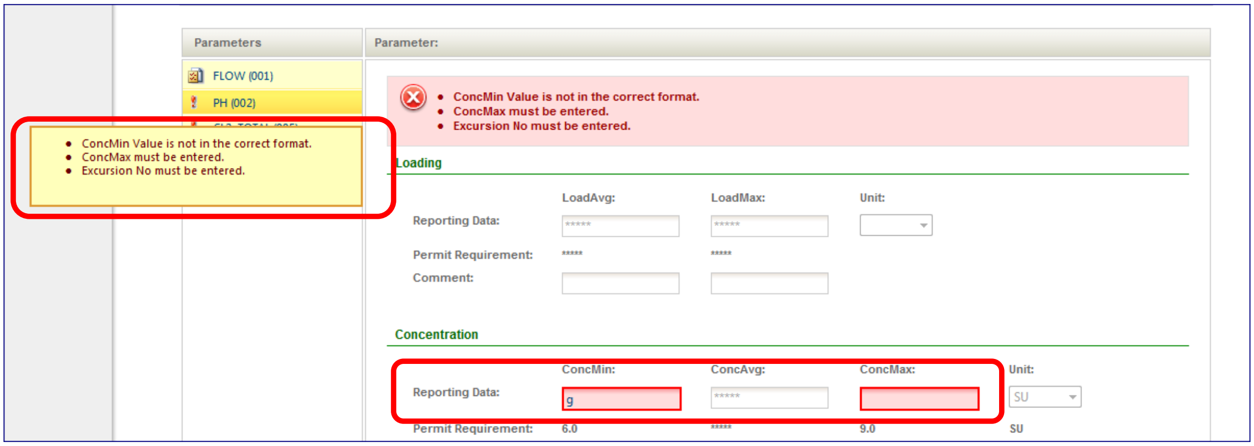


Apostrophes (“’”), commas (“,”), forward-slashes (“/”), and underscores (“_”) are *not* permitted in the online data entry form. The “>Greater than [insert result]” value and “<Less than [insert result]” value symbols can be used to report qualified data.

E2 V3 offers immediate data validation that indicates to the user upon opening the form which fields are required to be filled. The validation check also runs whenever the user switches to a different parameter or outfall on the report.



If any of the required eDMR entry fields are left blank or do not comply with eDMR data entry format when the user navigates to a different parameter, the icon will appear next to the parameter name in the list to the left. The user can view specific information on the validation issue by letting his/her mouse cursor hover over the parameter's icon .



4. **Monitoring/Analysis information:**
   - **Frequency of Analysis:** Select from the drop-down list the actual frequency of analysis for each parameter in the "reported" field in the column marked "Frequency of Analysis". If "Other" is selected, specify the actual frequency in the "Comment" field directly underneath. Permittees are required, at a minimum, to sample at the frequency indicated in the permit. If a permittee monitors any pollutant specifically addressed by the permit more frequently than the permit requires, the results of this monitoring shall be included in the calculation and reporting of the data submitted in this form.
   - **Sample Type:** Select from the drop-down list the actual type of sample collected in the field marked "Sample Type". Permittees are required, at a minimum, to sample using the sample type indicated in the permit. If the Sample Type can be edited for the permit type, select from the drop-down list the actual sample type for each parameter in the "reported" field in the column marked "Sample Type". If "Other" is selected, specify the actual sample type in the "Comment" field directly underneath. If the Sample Type field is protected and the actual sample type is different, specify the actual sample type in the "Comment" field directly underneath.
   - **Excursion No.:** In the text field marked "Excursion No.", enter the number (integers only) of samples which do not comply with the maximum and/or minimum permit requirements in the "Reporting Data" fields. Do not include monthly average excursions in this column. When the permit limit is NL, the Excursion No. will always be zero "0".

5. **Navigating among parameters:** The user may either click on the parameter name in the list on the left side of the page, or use the Previous Parameter and Next Parameter buttons. On the final parameter screen, the Next Parameter button is deactivated.

Select Previous Parameter button or one of the Save, Exit, or Next buttons at the bottom of the screen.

6. **DEQ Comments:** This is a read-only section that displays information input by the DEQ for the user. [Applicable to Storm Water Industrial General Permit only.]

7. **Outfall- and Form-Specific Comments:** Enter specific comments and explanation in the space provided, where applicable. Where noncompliance of permit requirements is reported, attach a brief explanation in accordance with the permit requirements describing the cause(s) of the noncompliance, the duration of the noncompliance, including the date(s) the noncompliance began or occurred, and corrective actions taken and to be taken to address the noncompliance. The foregoing information should be provided for **ALL** noncompliance noted in this report.

8. **Save, Exit, or Next**: To leave the DMR form *without saving*, the user may click the Exit button which is located at the bottom-left corner of every web form. To save the values that have been entered for this DMR at any time, click on the Save button; if the user saves the report, closes the web form window, logs out of the system, and returns later, his/her data will still be available just as he/she left it. (Please refer to Section 3.5: Editing or Deleting an Open Report for more information.) When this page has been appropriately completed, the user may click Next to proceed to the next step of the report submission process.

   Note: If you leave the DMR entry form without saving your data first, you risk losing any unsaved data that has been entered.

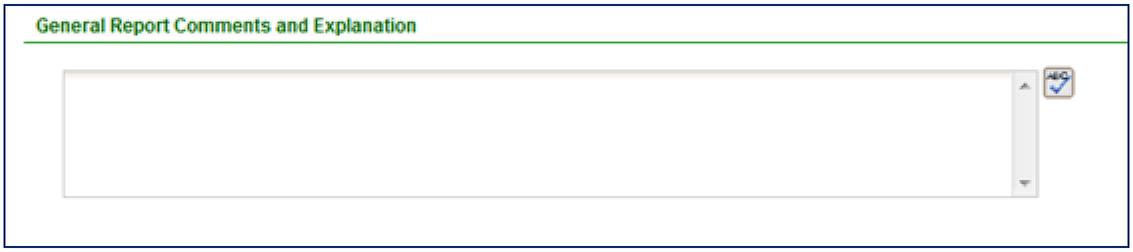
9. **Basin Name:** For Outfall 500 within Aggregate Facilities Nutrient Trading Permit Types, the location will display the Basin Name as opposed to a physical address.

* **Note:** For non-500 outfalls, there will be three additional fields: Operator Name, Operator Certification Number, and Operator Phone Number. These fields will be outfall specific.

3.4.1.3 Step 1B: General Report Comments and Explanation

After clicking the 

button at the bottom of the page, a General Report Comments and Explanation page will appear:



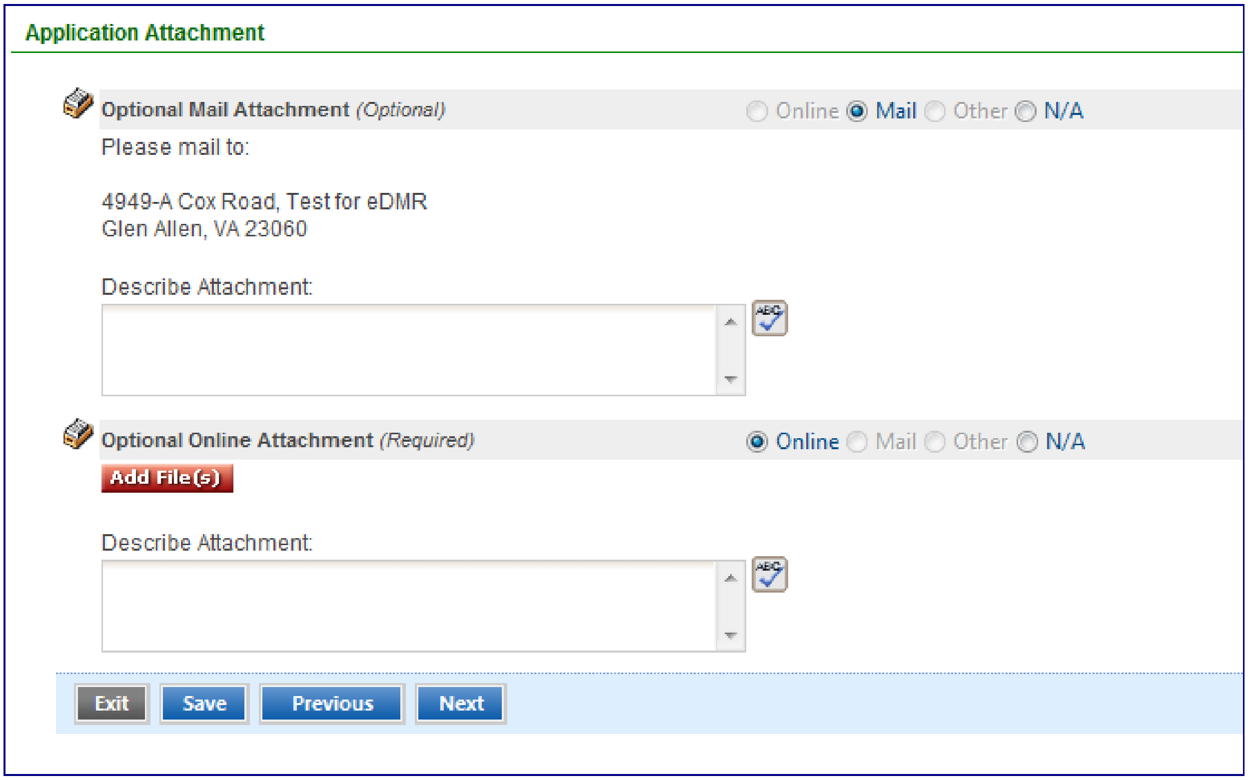
Enter general report comments and explanation in the space provided, where applicable. General report comments may include an explanation for submitting the report late, extenuating circumstances, et cetera. If there is more than one outfall for a facility and a general comment such as "We were unable to obtain a sample at Outfall 500 due to …" is entered, the same general comment will appear regardless of which outfall the viewer is navigating to. To change the general report comment at any time, click within the text box and edit as needed.

This page also allows users to enter, if applicable, the Operator Name, Operator Certification Number, and Operator Phone Number.

3.4.1.4 Step 2: Attachment

After completing the form, the user has the option of submitting supplemental files to this DMR report.

Note: Only attach files which document and/or supplement information associated with the DMR (e.g., Monthly Data Summary and/or Operations Log, Laboratory data and information supporting 'flagged' data, DMR transmittal letter or a Written Report for any noncompliance, etc.). Do NOT attach any files or information which may be required by the permit but is not related to the DMR (e.g., annual compliance plan update, annual report, etc.)



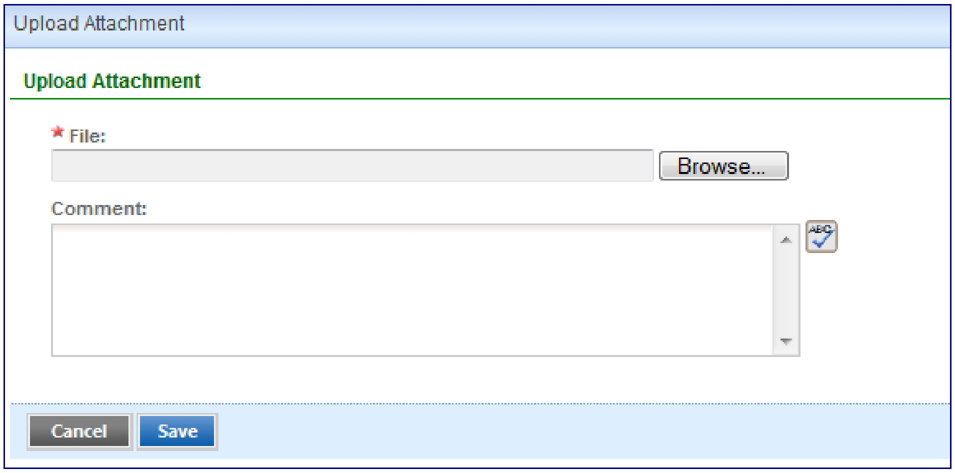
The user has two options for submitting attachments:

- **Mail Attachment:** If the user does not have an electronic copy of the attachment to submit, or if the file is too large, the user can send in the attachments via mail or email. The user can provide a description of the attachments that will be mailed so DEQ will know the nature of the attachments that will be expected via mail. Attachments are to be mailed to the appropriate Regional Office. If users intend to mail in the attachment in hard copy form, they may go to the Submit Attachment(s) by Mail section to find the mailing address.

- **Online Attachment:** The user can browse for and upload electronic files to the e-DMR server. The size of each attachment cannot be any larger than 1.5 MB. Contact eDMR Regional Administrator for alternative for submitting over-sized attachments.

  Note: the maximum field length for the attachment name is 100 characters. Do not include apostrophes (“’”), commas (“,”), forward-slashes (“/”), spaces (“ “), or underscores (“_”) in the attachment names or else they cannot be opened by the DEQ staff for review.

  Click on the resulting "Add File(s)" button and the following window will appear:



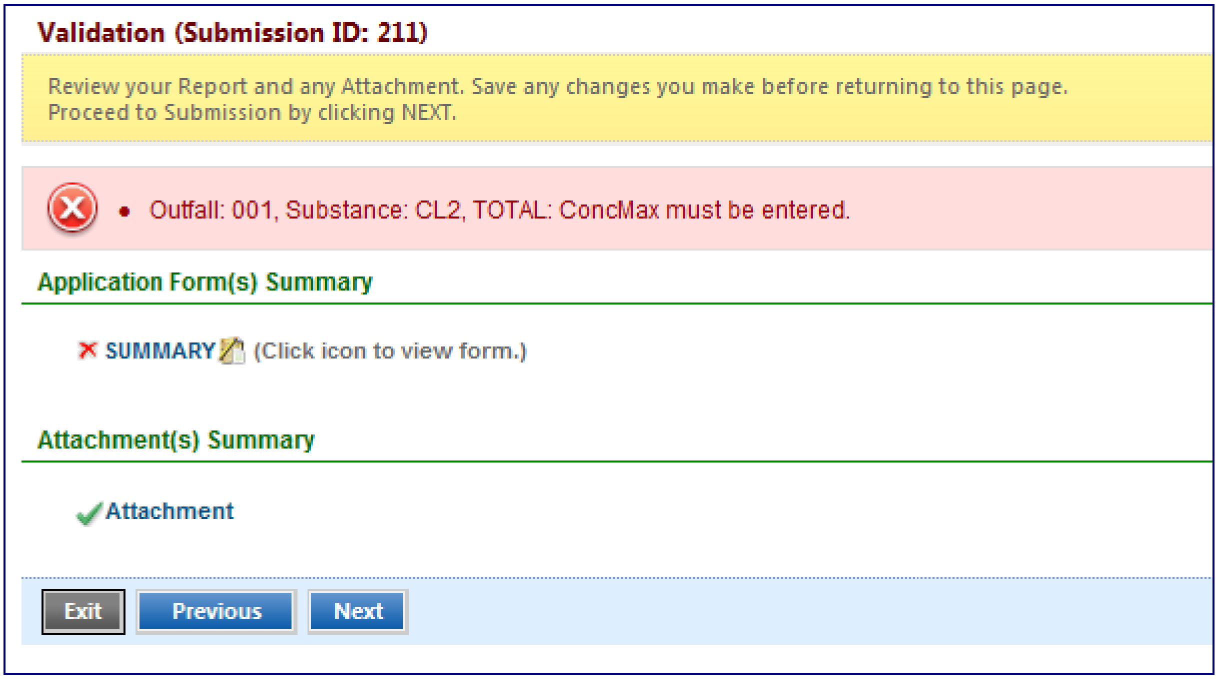
To locate the file to be attached, use the "Browse…" button. Then provide a brief description of the file in the "Comment" section. Only certain file types are allowed to be uploaded. Currently, they are:

- .pdf
- .txt
- .xml
- .htm
- .zip
- Image - .jpeg, .gif, .jpg, .tif, .tiff, .bmp
- Word - .wpf, .wpd, .doc, .docx
- Excel - .xls, .xlsx
- Access - .mde, .ldb
- Visio - .vsd

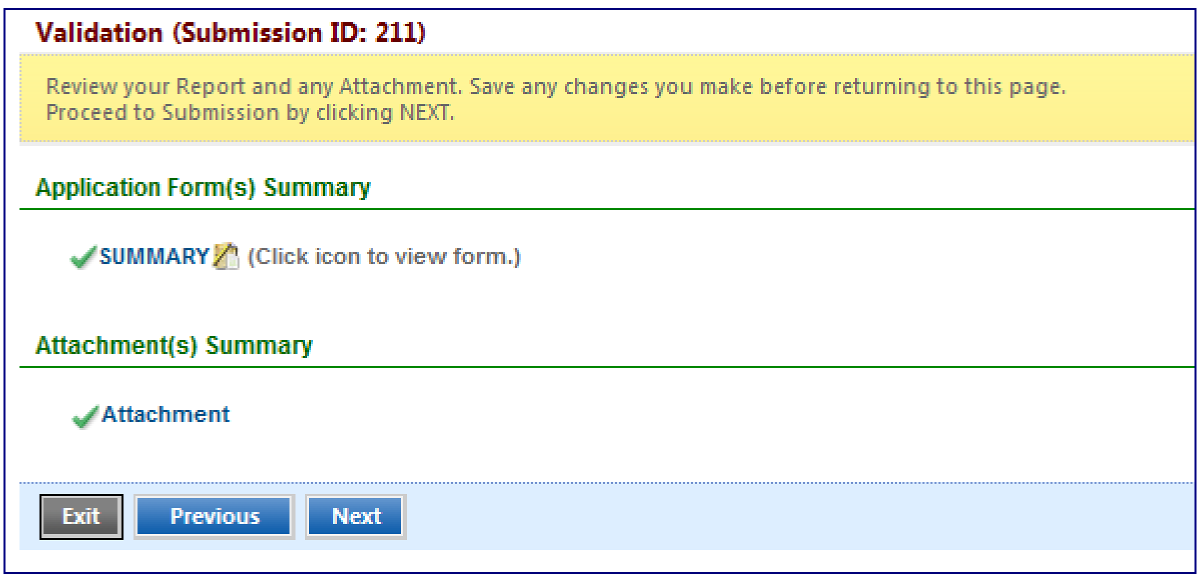
3.4.1.5 Step 3: Validation

Once the user clicks the 

button, the system automatically performs a validation check to ensure that all mandatory data entry fields have been properly completed. If any part of the report fails the validation check, then the user may click on the link provided to go back to Step 1A: Application. The user may also click on the icon to view the reporting requirements.



If the system deems the report to be properly completed, then the following page is displayed and the user may proceed to the final step.



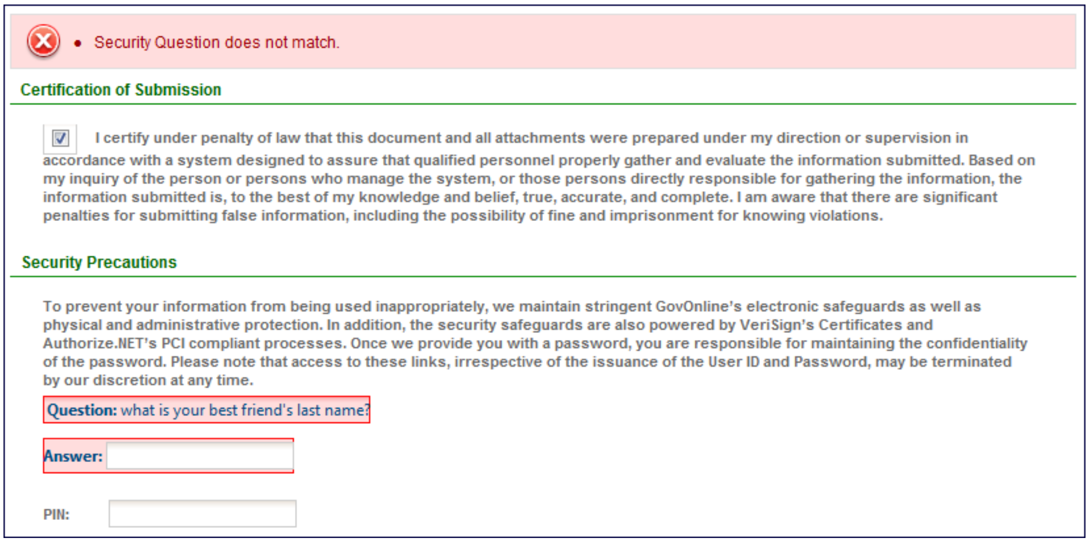
3.4.1.6 Step 4: Submission

At this stage, the DMR Certifier must read the certification statement, click the checkbox indicating that he/she has read and understands the certification statement, answer the security questions set in his/her first login, enter his/her PIN, and click the 

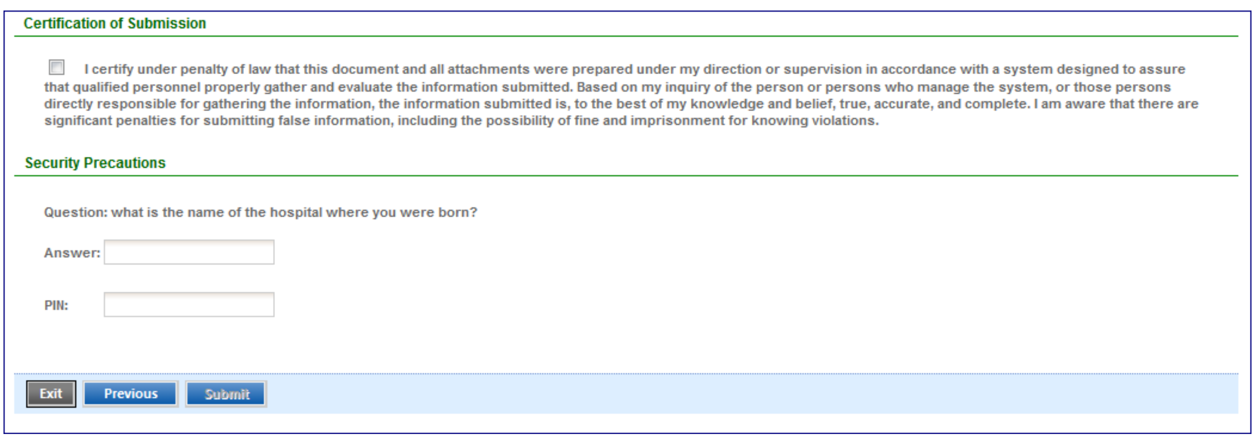
button to submit the results to DEQ.

Neglecting to enter the correct PIN, check the Certification of Submission checkbox, or answer the security question correctly will prevent the submission from occurring.

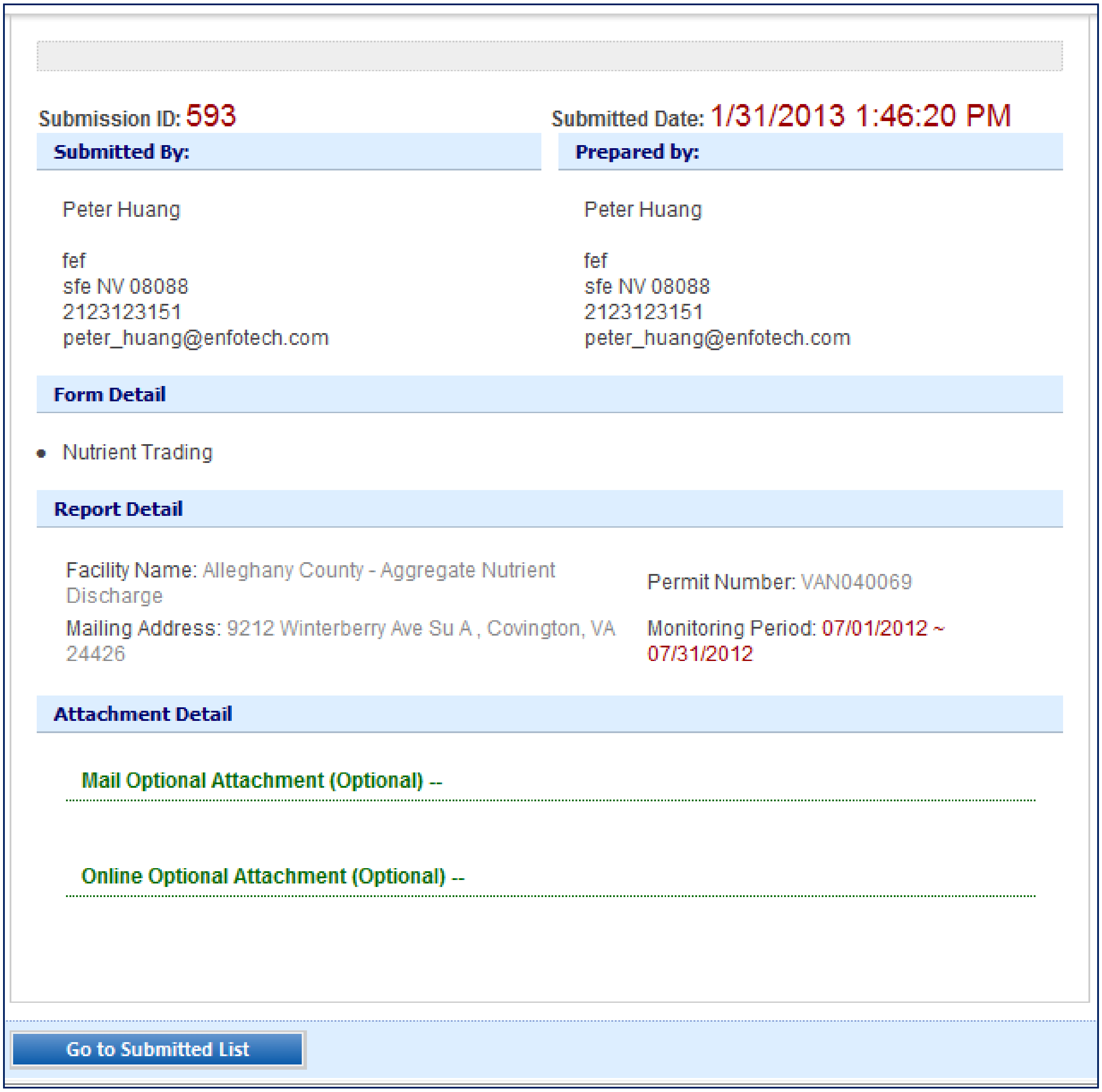
The user has three chances to answer the security questions. If the user provides the wrong answers to the security questions three times (within the same session), the user is no longer allowed to submit the data. When the security questions are suspended, an e-mail will be sent to the user and copied to the DEQ e-DMR Administrator. Once the e-DMR Administrator resets the security questions, the user will be notified via e-mail. The following shows how the system responds when the user provides the wrong answers:

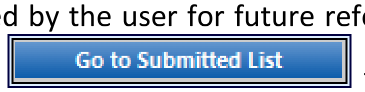


If the security question and PIN have passed validation, the DMR will then be sent to the DEQ.



The user will be taken to a page that confirms receipt of the submission and summarizes the report submitter (name of Certifier who clicked the Submit button), the name of Certifier *or* Preparer who originally created the reportform, and attachment details.

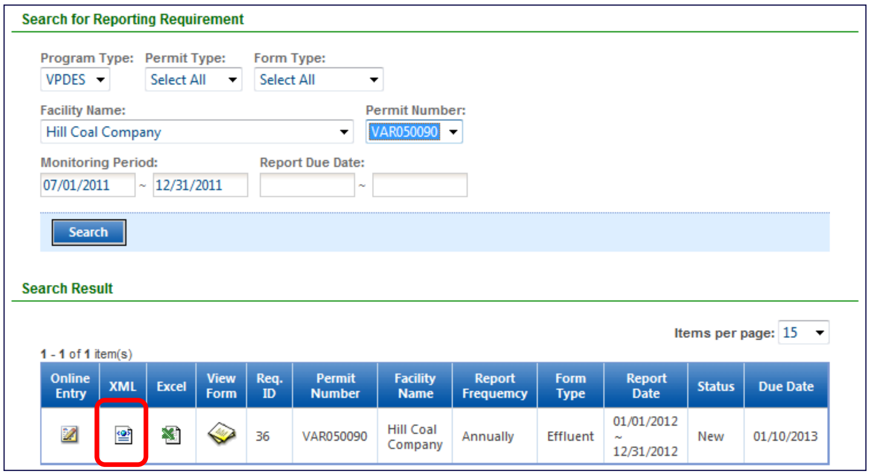


The "Submission ID" is a confirmation number that will be stored in the e-DMR system and should be recorded by the user for future reference. On this page, the user will also have the option of clicking  to be taken directly to the Submitted Report(s) section of the Report Management module. Submission ID, Submitted Date, DMR date and Attachment information are available for any submitted DMR.

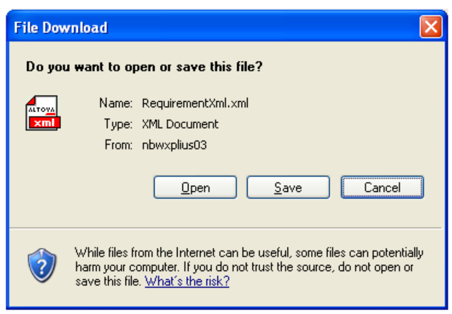
3.4.2 Using the XML File Upload Option

3.4.2.1 Step 1: Downloading and Viewing Reporting Requirements

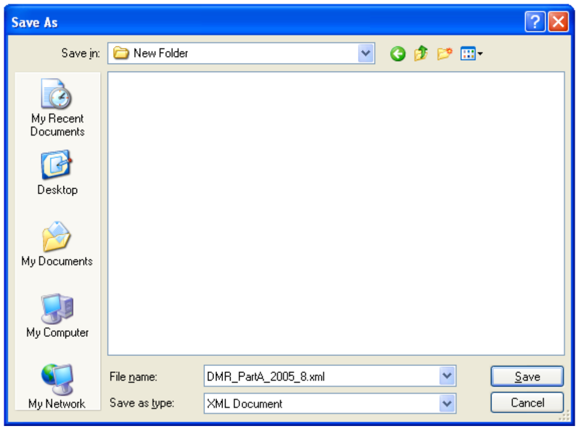
In the previous section, the template, or blank DMR form, was viewed online using the View Form window. If the user is using the XML File Upload submission option, the user can download an XML template of the DMR file by going to the Create New Report screen and clicking on the XML icon  for the corresponding record:



This will begin a series of message boxes.



To open the file in a new window without saving, click "Open." However, if the user wishes to download the template DMR XML file, he/she should click "Save," at which point the user will be prompted to supply the location to which he/she would like to save the file.



Navigate to the directory where the file is to be saved. Once the file location and name have been selected a file location and name, click "Save."

The file that is downloaded is an XML file that contains the reporting requirements for the DMR, but does not contain the DMR results.

The readable DMR format displayed in the e-DMR system, described in Section 3.2.1.1, is created by applying a style sheet to the XML that is being downloaded in this section. This type of style sheet is used to display XML, the language adopted to communicate between environmental facilities and agencies, because it is platform-independent.

Clicking on the XML button  or viewing the XML file that is downloaded allows the user to take a peek behind the scenes at the data being displayed.

The following screenshot shows a portion of the XML template file opened using Internet Explorer:

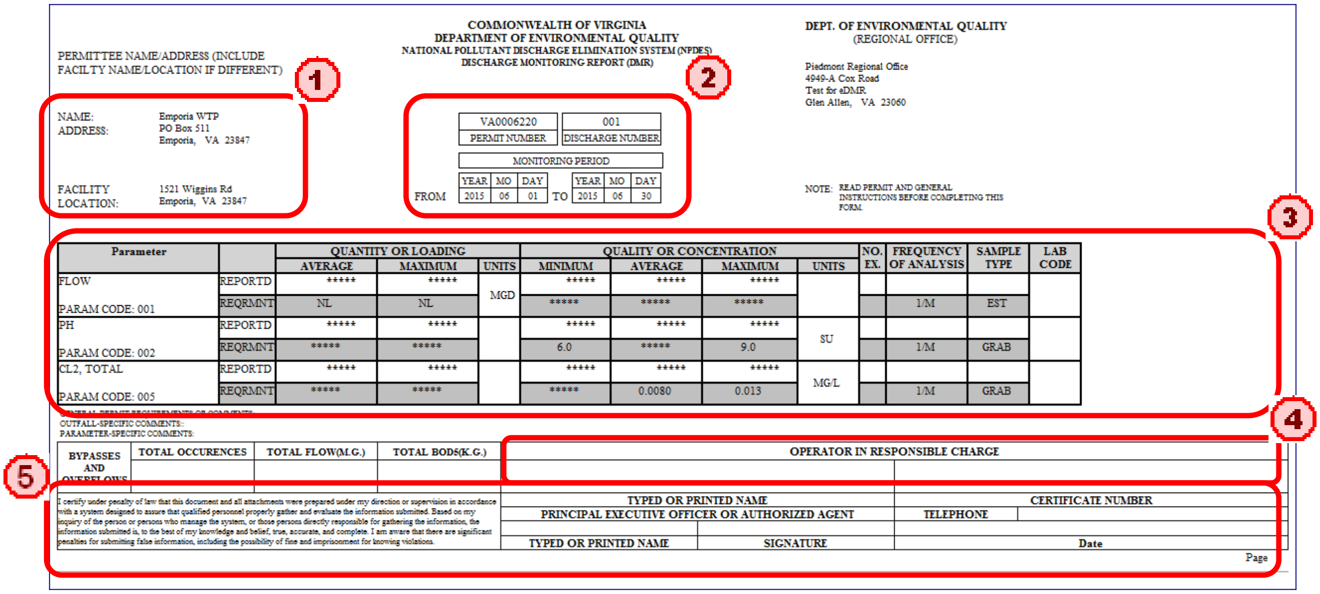

```
  <?xml version="1.0"?>
- <eDMR>
  - <MetaData>
      <SchemaIdentification>e-DMR Schema version 1.4</SchemaIdentification>
      <SchemaDescription>e-DMR Work Group Schema version 1.4</SchemaDescription>
      <SchemaPurpose>Electronic Discharge Monitoring Report submissions</SchemaPurpose>
      <SchemaVersion>1</SchemaVersion>
      <SchemaCreateDate>2002-02-28</SchemaCreateDate>
      <SchemaLastUpdateBy>e-DMR XML Schema Work Group</SchemaLastUpdateBy>
      <SchemaLastUpdateDate>2011-08-30</SchemaLastUpdateDate>
      <SchemaContactInformation>leopard.matthew@epa.gov, and Edmr_support@enfotech.com</SchemaContactInformation>
    </MetaData>
  - <Receiver>
      <AgencyName>State of Virginia Department of Environmental Quality</AgencyName>
      <ReceivercontactName/>
      <ReceivercontactTitle/>
    - <ReceiverMailAddress>
        <MailingAddressText/>
        <SupplementalAddressText/>
        <MailingAddressCityName/>
        <MailingAddressStateUSPSCode>VA</MailingAddressStateUSPSCode>
        <MailingAddressStateName>Virginia</MailingAddressStateName>
        <MailingAddressCountryName>United States</MailingAddressCountryName>
        <MailingAddressZIPCode/>
      </ReceiverMailAddress>
    </Receiver>
  - <Sender>
      <SenderName/>
    - <SenderPhoneFaxEmail>
        <TelephoneNumber/>
```

For a clearer picture of the structure of the XML file and how it relates to the standard DMR format, collapse the following data elements, which are shown in red text above and enveloped by < >, by clicking on the (-): MetaData, Receiver, Sender, FacilityIdentification, ReportIdentification, LocationGroupIdentification, Certification, and MonitoringData.

```
<eDMR>
 <MetaData>
 <Receiver>
 <Sender>
 <Submission submissionID="" submissionFileName="" submissionFileCreatedDate="" submissionComment="">
  <Facility>
   <FacilityIdentification stateFacilitySystemAcronymName="VA e-DMR" stateFacilityIdentifier="200000196224">
   <Report>
    <ReportIdentification>
    <MonitoringLocationGroup monitoringLocationName="001">
     <LocationGroupIdentification monitoringLocationName="001">
     <MonitoringData>
      <ParameterIdentification>
      <Laboratory>
      <SummaryofMonitoringResult>
      <SummaryofMonitoringResult>
      <SummaryofMonitoringResult>
      <SummaryofMonitoringResult>
      <SummaryofMonitoringResult>
     </MonitoringData>
     <MonitoringData>
     <MonitoringData>
    </MonitoringLocationGroup>
    <OperationalData>
   </Report>
  </Facility>
  <Certification>
  <Attachments>
 </Submission>
</eDMR>
```

Now that the structure is well defined, the form can be examined piece-by-piece to see exactly where the data presented using the style sheet is, in relationship to the entire XML e-DMR file.

The following image highlights a section of the DMR and assigns a section number to it. The XML is then displayed with the corresponding section number on the following pages.



1. Section 1


```
<FacilityIdentification stateFacilitySystemAcronymName="VA e-DMR" stateFacilityIdentifier="200000196224">
  <FacilitySite>
    <FacilitySiteName>Emporia WTP</FacilitySiteName>
    <FacilityDistrictName />
    <FacilityRegistryIdentifier>200000196224</FacilityRegistryIdentifier>
  </FacilitySite>
  <FacilityRegionOffice>
  <LocationAddress>
    <LocationAddressText>1521 Wiggins Rd</LocationAddressText>
    <SupplementalLocationText />
    <LocalityName>Emporia</LocalityName>
    <CountyName />
    <StateName>VA</StateName>
    <CountryName>U.S.A.</CountryName>
    <LocationZIPCode>23847</LocationZIPCode>
    <LocationDescriptionText />
  </LocationAddress>
  <MailingAddress>
    <MailingAddressText>PO Box 511</MailingAddressText>
    <SupplementalAddressText />
    <MailingAddressCityName>Emporia</MailingAddressCityName>
    <MailingAddressStateName>VA</MailingAddressStateName>
    <MailingAddressZIPCode>23847</MailingAddressZIPCode>
  </MailingAddress>
</FacilityIdentification>
```

2. Section 2


```
<ReportIdentification>
  <PermitNumber>VA0006220</PermitNumber>
  <StatePermitNumber />
  <PermitteeName />
  <ProgramType>VPDES</ProgramType>
  <PermitType>VPDES</PermitType>
  <FormType>Z</FormType>
  <FacilityLimitType>Final</FacilityLimitType>
  <ReportTransactionID />
  <FormComment />
  <FacilityReportGroup />
  <ReportReferenceID>7178</ReportReferenceID>
  <ReportStartDate>2015-06-01</ReportStartDate>
  <ReportEndDate>2015-06-30</ReportEndDate>
  <ReportFrequency>Monthly</ReportFrequency>
  <GeneralReportComment />
  <DueDate>2015-07-10</DueDate>
  <ReportCreateDate />
  <OriginalOrRevision />
  <AgencyComment />
</ReportIdentification>
```


3. Section 3


```
<MonitoringLocationGroup monitoringLocationName="001">
  <LocationGroupIdentification monitoringLocationName="001">
  <MonitoringData>
    <ParameterIdentification>
    <Laboratory>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
    <SummaryofMonitoringResult>
  </MonitoringData>
  <MonitoringData>
  <MonitoringData>
</MonitoringLocationGroup>
```

4. Section 4


```xml
<OperationalData>
  <RepresentativeName />
  <ResponsibilityArea />
  <Title />
  <RepresentativeContactInfo>
    <EmailAddressText />
    <TelephoneNumber />
    <PhoneExtension />
    <FaxNumber />
    <AlternateTelephoneNumber />
  </RepresentativeContactInfo>
  <CertificationCategory />
  <CertificationNumber />
  <OperatorRequiredInd>N</OperatorRequiredInd>
</OperationalData>
```


5. Section 5


```xml
<Certification>
  <CertificationStatement>
  <Certifier />
  <CertifierTitle />
  <CertifierContactInfo>
    <TelephoneNumber />
  </CertifierContactInfo>
  <CertificationDate />
  <PIN />
</Certification>
```


Please note that the data that is populated in the template XML file and used for the preview can be thought of as the data that is needed to create a blank DMR form, ready to be filled out by the corresponding facility. All data that is in the pre-populated template file has been drawn from the DEQ database to simplify reporting for the facility and to increase accuracy. Since this is the template file, or the blank DMR form, these values will be populated with actual reporting data once the submission XML file has been created by the facility.

3.4.2.2 Step 2: Result Data Population

A variety of commercially available software can be used to populate the XML template file that is downloaded from the e-DMR system. A simple text editor such as Notepad or WordPad can be used, or targeted XML data entry software such as Altova XML Spy. However, DMR facilities that prefer the XML submission option typically make this choice because they can configure their existing DMR tracking software to output or convert their DMR results automatically to the e-DMR XML schema format. If your software can be configured or customized to output XML files automatically in the e-DMR format, then this submission option may be the preferred option.

Regardless of the approach used to populate the XML file, the following elements in the XML file will need to be populated prior to submitting the file:

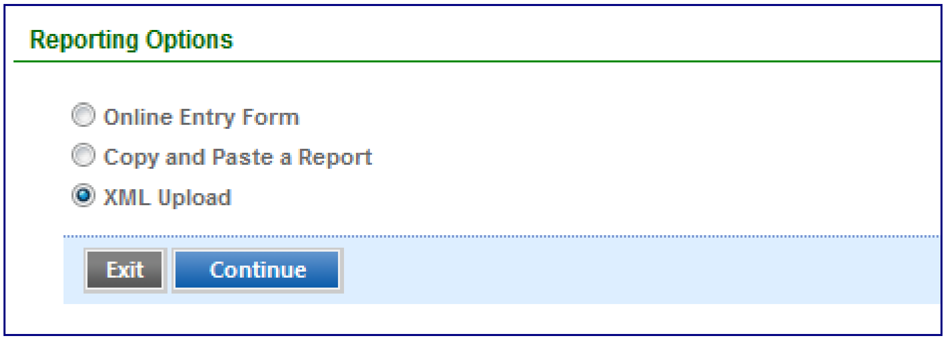
Field	Description	XML Path
ReportStartDate	The first date of the monitoring period.	<Submission> <Facility> <Report> <ReportIdentification> <ReportStartDate>
ReportEndDate	The last date for the monitoring period.	<Submission> <Facility> <Report> <ReportIdentification> <ReportEndDate>
SubmissionFileCreatedDate	The date on which the XML file has been created.	<Submission>
DueDate	The date on which the DMR is due.	<Submission> <Facility> <Report> <ReportIdentification> <DueDate>
ReportCreateDate	The date on which the XML file has been created.	<Submission> <Facility> <Report> <ReportIdentification> <ReportCreateDate>
MonitoringStartDate	The first date of the monitoring period.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <MonitoringStartDate>
MonitoringEndDate	The last date for the monitoring period.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <MonitoringEndDate>
CertificationDate	The date on which the file is being uploaded to the state (i.e. certified for accuracy and completeness)	<Submission> <Certification> <CertificationDate>
MeasurementValue	Used to provide the value for the concentration minimum, concentration	<Submission> <Facility> <Report>

	maximum, concentration average, loading maximum, or loading average result.	<MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <MeasurementValue>
QCExceedance	Indicates the number of excursions for a particular parameter. Note: This field is required in all cases except when there are no limits for that parameter. Only the 1st instance of the 5 blocks of SummaryofMonitoringResult need to be filled in; it is the 1st instance that is used by the e-DMR system.	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <QCExceedance>
ActualSampleFrequency	Indicates the actual sample frequency for each parameter on the DMR	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <ActualSampleFrequency>
ActualSampleType	Indicates the actual sample type for each parameter on the DMR	<Submission> <Facility> <Report> <MonitoringLocationGroup> <MonitoringData> <SummaryofMonitoringResult> <SummaryResult> <ActualSampleType>
RepresentativeName	This field is used to supply the operator in responsible charge. This data element is only required if the facility is required to report operator information.	<Submission> <Facility> <Report> <OperationalData> <RepresentativeName>
CertificationNumber	This field is used to supply the Operator Certification number. This data element is only required if the facility is required to report	<Submission> <Facility> <Report> <OperationalData> <CertificationNumber>

	operator information.	

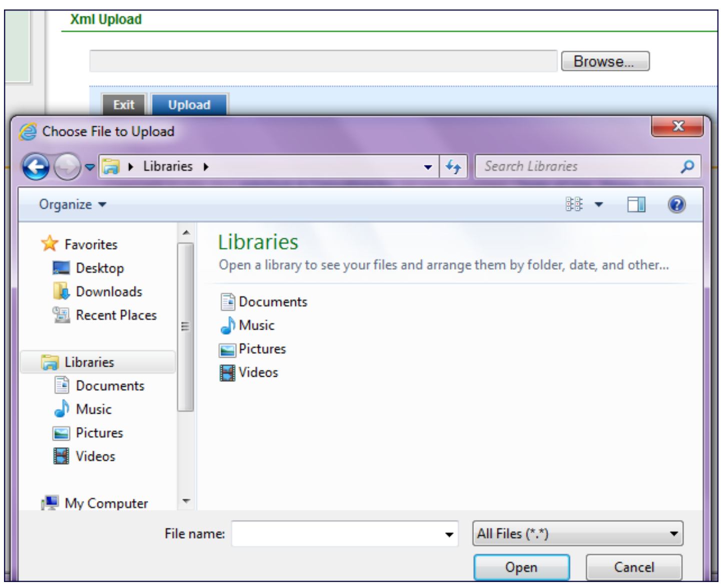
3.4.2.3 Step 3: Upload

Once an XML file has been generated and saved locally, the file can be submitted to the e-DMR System. Submitted files can be viewed by regulatory agencies and accessed for future reference. To submit the XML file, click on the Online Entry icon  for the corresponding record, which will bring up the following page:



Select the "XML Upload" radio button and click 

.

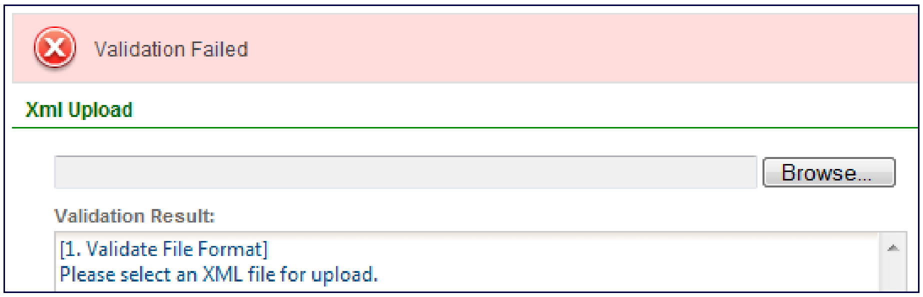


To select the XML file, click on the "Browse" button. This will bring up the Choose File message box. Browse through the local file directory, and select the file to be uploaded.

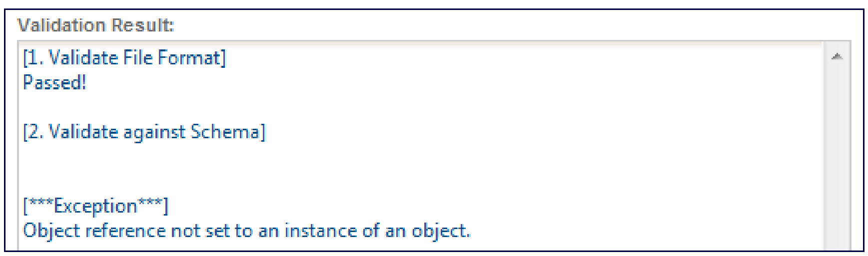
Note that the file selected must be a valid XML file. If the file does not have an .xml extension, an error will occur. Also, the file must be an e-DMR schema instance document that must comply with the national e-DMR XML schema file format. A copy of this file format and specifications can be found at the EPA/State Exchange Network website at http://www.exchangenetwork.net. The file must comply with the naming conventions of the data elements, order of the data elements, and data element data type definitions.

Once the file has been selected, click the **Upload** button. The system will run a validation check and display an error if there is something wrong with the file. Listed below are the most common errors:

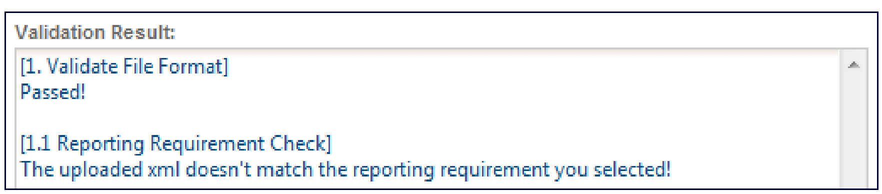
1. The file is not in XML format – for example, the submission file is in Word format:



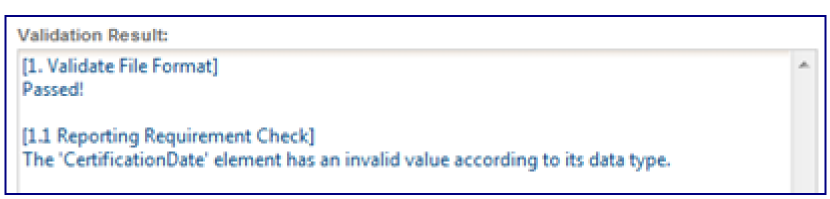
2. The file is in valid format, but it is not well defined:



3. The file is in a valid format, but not the correct e-DMR type. For example, if the XML file for the wrong report is submitted, then the error message will be:



4. The file is in valid format and correct type, but with some errors, in which case the detailed error messages will be displayed. For example, in the submission XML file, an invalid date was input. The following error message will be generated:



Other potential error messages:

Error Message	Potential Cause
No reporting requirement can be found in E2 associated with this XML file.	E2 is not expecting a DMR with the specified start date and end date for this facility. This error is usually encountered when the ReportStartDate and ReportEndDate elements are not specified.
The “<” character cannot be included in the name…	This is usually caused by not having the XML file conform to the XML schema, either by having an extra “<” or “>” or omitting an “<” or “>”
The ‘date’ element is invalid – The value ‘’ is invalid according to its datatype.	XML requires that all date fields be supplied. This error message indicates that some date field in the XML field has not been filled in.
{elementName} is required	A required field in the XML file (from the table above) was not specified.

The user can correct the errors, and resubmit the file. If the test is successful, the page will indicate that the submission has passed validation.

3.4.2.4 Step 4: Attachment

This step is identical to the Attachment step for the online data entry method. For further details, please refer to Section 3.2.1.4: Attachment.

3.4.2.5 Step 5: Validation

This step is identical to the Validation step for the online data entry method. For further details, please refer to Section 3.2.1.5: Validation.

3.4.2.6 Step 6: Submission

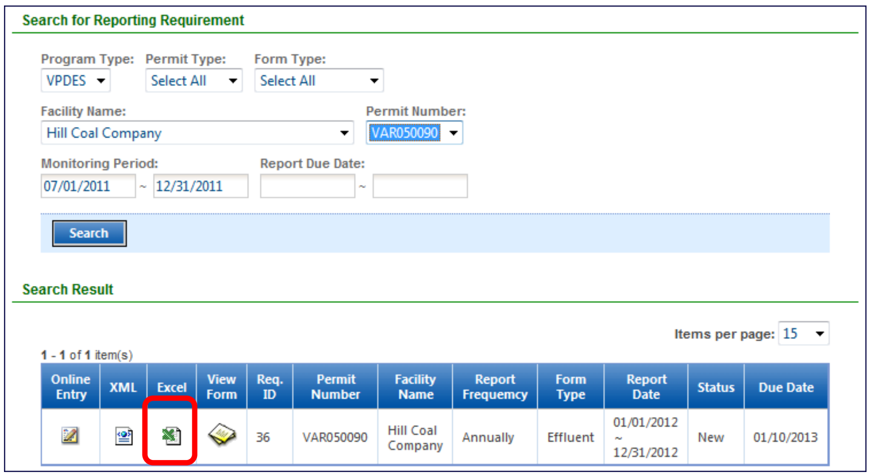
This step is identical to the Submission step for the online data entry method. For further details, please refer to Section 3.2.1.6: Submission.

3.4.3 Using the Excel Copy-and-Paste Feature

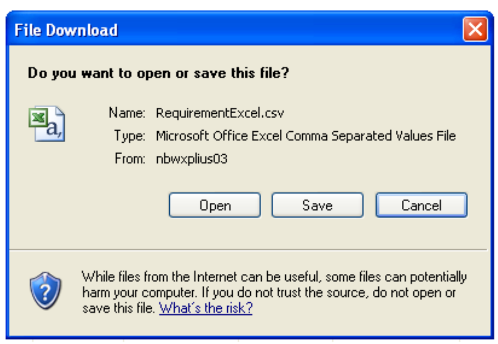
In many cases, a facility may store its DMR data electronically in a common spreadsheet software application, such as Microsoft Excel. To blend the simplicity of the web form with the ease-of-use of commonly used spreadsheet programs, there is a copy-and-paste feature available on the DMR web form.

3.4.3.1 Step 1: Downloading Reporting Requirements

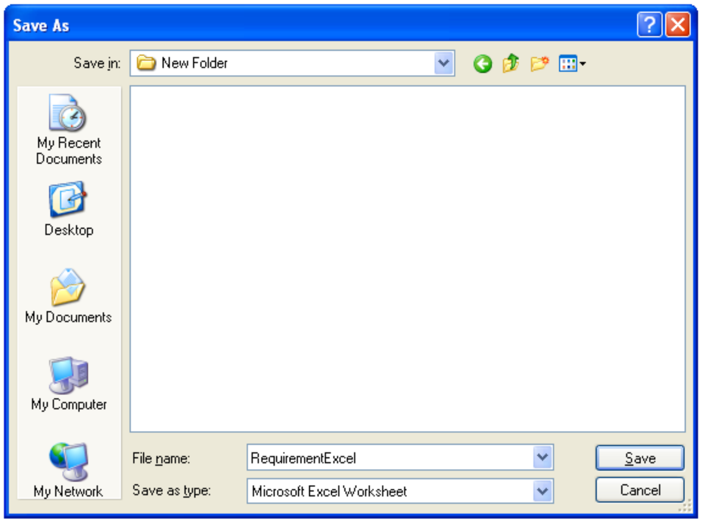
To download a DMR template file in Excel file format, return to the Create a New Report screen and click on the Excel icon for the corresponding record:



This will begin a series of message boxes.



To open the file in a new window without saving, click "Open." Alternately, the user should click "Cancel" if he or she does not wish to save or open the file. However, if the user wishes to download the template DMR Excel file, he/she should click "Save," at which point the user will be prompted to respond with the location he/she wishes to save the file in.



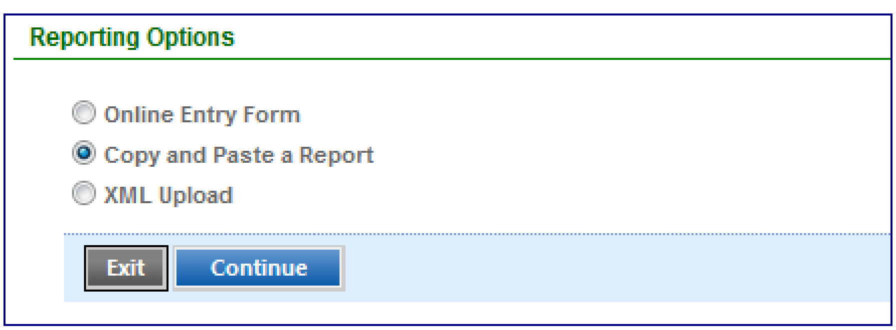
The template DMR Excel file is a Comma Separated Value (CSV) file that can be read by Microsoft Excel and other spreadsheet programs. This file contains a listing of the parameters on the left-hand side and the heading of the columns of the DMR form across the top. The facility user can then begin using this Excel spreadsheet to enter in DMR results.

3.4.3.2 Step 2: Filling out the DMR Form

The CSV file that is downloaded from the e-DMR system can be opened by Excel and most other spreadsheet programs. Once this file is opened, it can be edited in any way as seen fit by the facility, but the **order of the columns should not be modified**. This is because, in Step 3, the data will be copied from the Excel file and pasted back into the e-DMR system web form, which will expect the data in the same order in which it was downloaded.

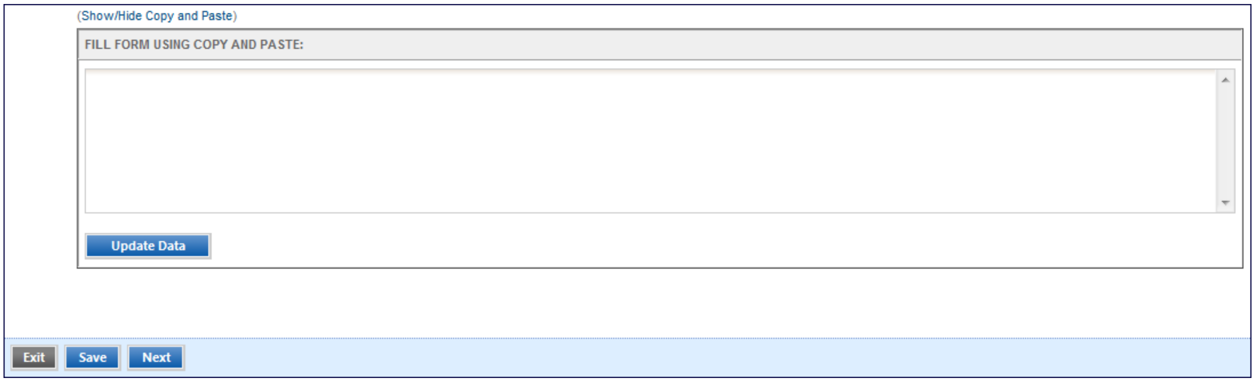
3.4.3.3 Step 3A: Result Data Population

Once the facility user is finished filling out the Excel spreadsheet, he/she can return to the e-DMR system and go to the Create a New Report screen to submit the report. To access the DMR web form, click on the Online Entry icon for the corresponding record, which will bring up the following page:



Select the "Copy and Paste a Report" option and click 

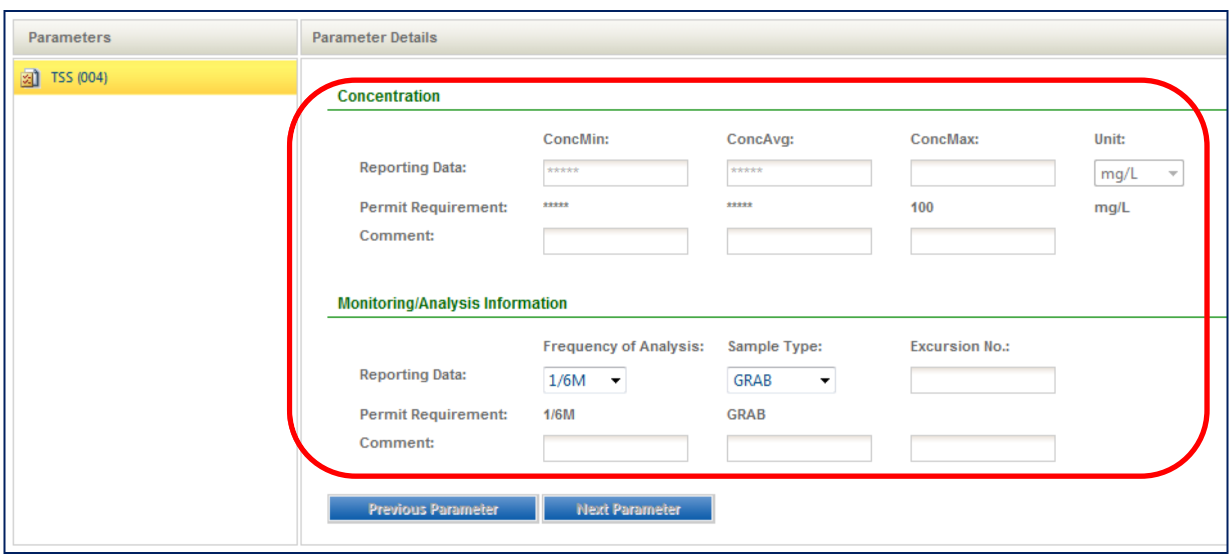
to open the following page:



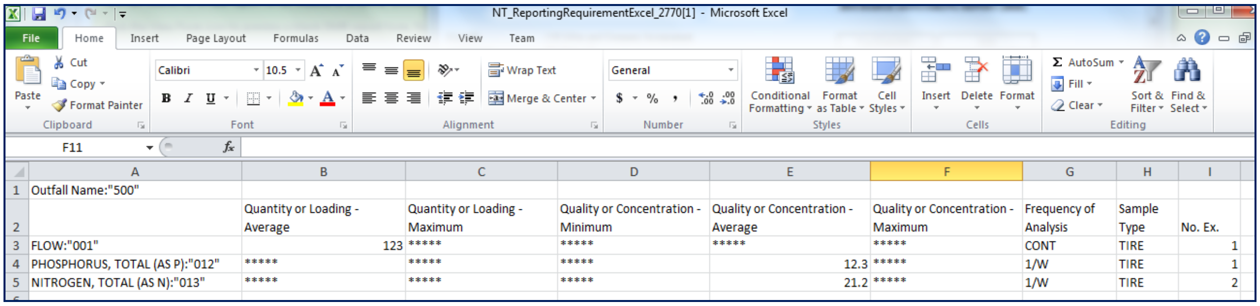
This is the same as the Online Entry page, but the user is brought to a textbox at the bottom for copying in data. Copying and pasting data allows for standardization of data, reducing the degree of error that may occur by retyping the data. To use the copy and paste conversion tool, there are a couple rules that must be followed:

1. The order of the parameters in each row and the order of columns of the locally saved spreadsheet must be in the same order as those on the DMR Data web form.
2. Only the body of the DMR form may be copied. This does not include the parameter row headings, columns headings, operator section, or comments section. Operator section and Comments must be entered manually.

Looking first at rule #1, examine the web form parameters, paying attention to their order as listed across the page. The following figure outline this area:

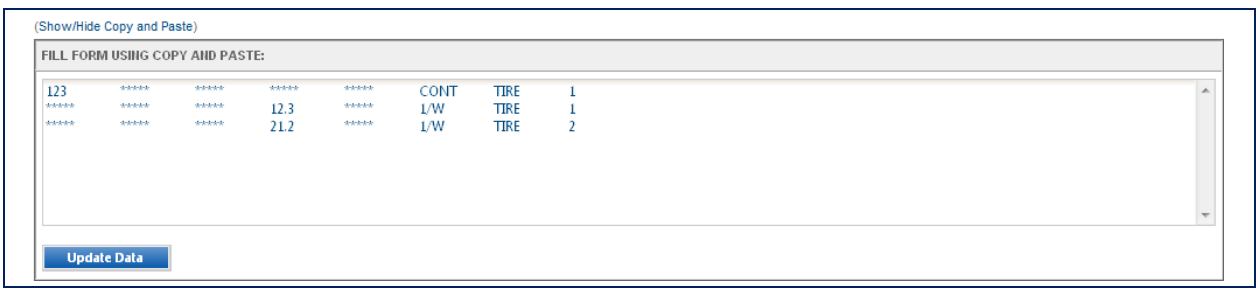


Next, open the spreadsheet software that stores the DMR data. Verify that the parameters listed are the same as those on the web form, and that the order matches exactly (which will be true by default). This may take some time to set up, but it need only be done once. The following image illustrates this:

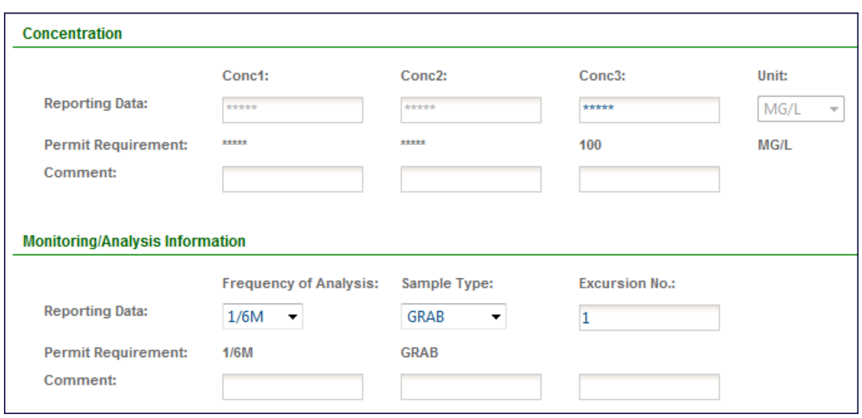


In this case, the parameters are identical and in the same order, and the column order is the same across the top of the spreadsheet. Note that only the data itself is selected; make sure that the parameters, column headers, or extra columns to the right are *not* selected and copied.

Back in the e-DMR system, paste the report inside of the text box beneath the Copy and Paste box.



This will paste the tab delimited data that had been copied from the locally saved spreadsheet. Click  to view the results in the Online Entry form:



Note: If the permit contains multiple outfalls, only one outfall can be pasted at a time. Use the "Outfall" drop-down menu to change outfalls and be able to paste in the data for each one, until all outfalls are populated.

Complete the DMR web form by filling in the other fields that could not be pasted, such as comments. For detailed instructions on filling out the online entry form, please refer to Section 3.2.1.2: Application.

3.4.3.4 Step 3B: General Report Comments and Explanation

This step is identical to the General Report Comments and Explanation step for the online data entry method. For further details, please refer to Section 3.2.1.3: General Report Comments and Explanation.

3.4.3.5 Step 4: Attachment

This step is identical to the Attachment step for the online data entry method. For further details, please refer to Section 3.2.1.4: Attachment.

3.4.3.6 Step 5: Validation

This step is identical to the Validation step for the online data entry method. For further details, please refer to Section 3.2.1.5: Validation.

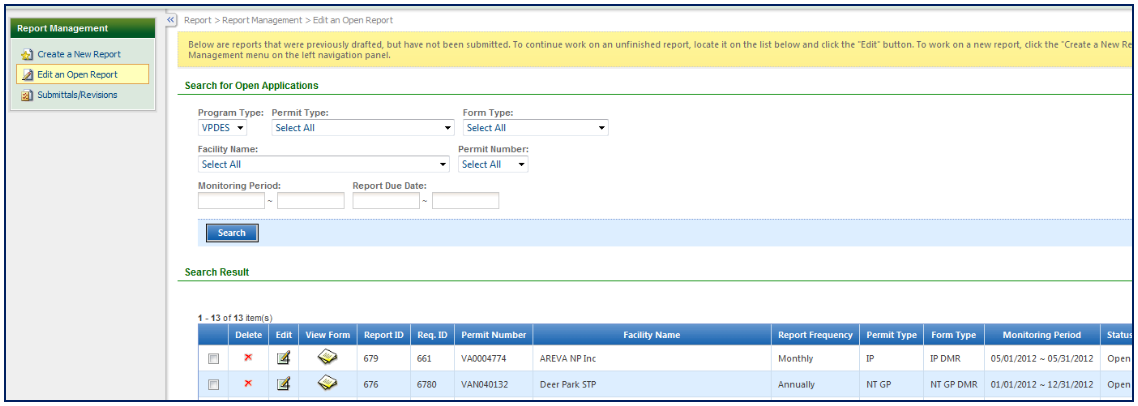
3.4.3.7 Step 6: Submission

This step is identical to the Submission step for the online data entry method. For further details, please refer to Section 3.2.1.6: Submission.

3.5 Editing or Deleting an Open Report

Aspreviously stated, the user has the option of saving his/her work at any time during the report creation process. To continue work on an open report (An open report is a report that has been started and saved, but not yet submitted.), simply click on the "Edit an Open Report" icon 

in the Report Management module.



By entering the appropriate search criteria, the report that needs to be edited can be found.

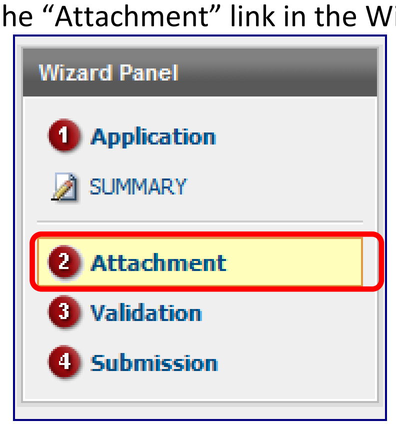
Each open report will have a corresponding Report ID listed.[4]

3.5.1 Editing an Open Report

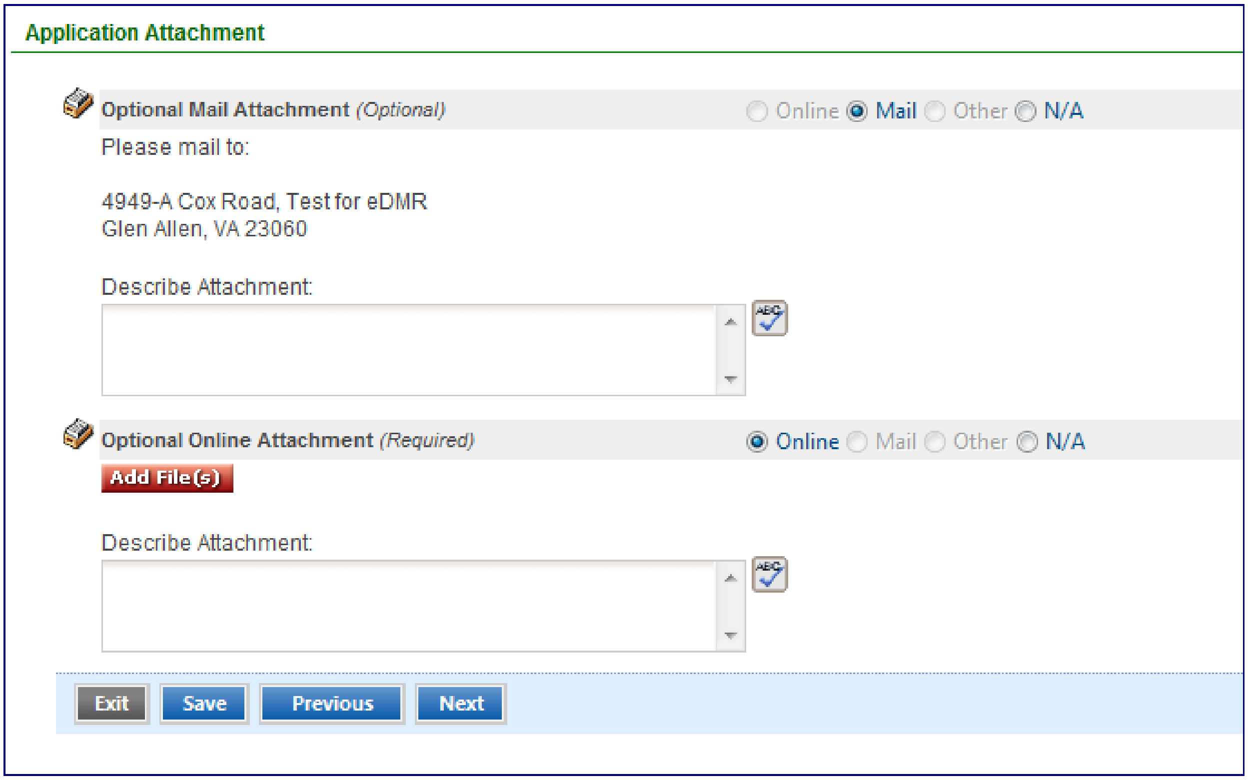
To edit a report, select the Edit icon ; the user is then taken directly to the Online Entry form. From here, the user may proceed as in Section 3.2.1 to continue filling out the report.

To edit a report's attachments, click 

to proceed through the Report Wizard to Step 2: Attachment, or click directly on the "Attachment" link in the Wizard Panel.



[4] This Report ID is an ID that is used until the report is submitted. When the report is certified and submitted, a new Submission ID will be generated for the DMR.



The user may then proceed as in Section 3.2.1 to submit the attachments.

3.5.2 Deleting an Open Report

A report that has been started but has not yet been certified and submitted to DEQ can be deleted by selecting the icon. Multiple reports can be deleted by checking the necessary checkboxes in the left side of the grid view and clicking the Delete button. Note that reports that have been certified and submitted to DEQ cannot be deleted. If corrections are necessary, a revision must be made.

Search Result

Items per page: 15

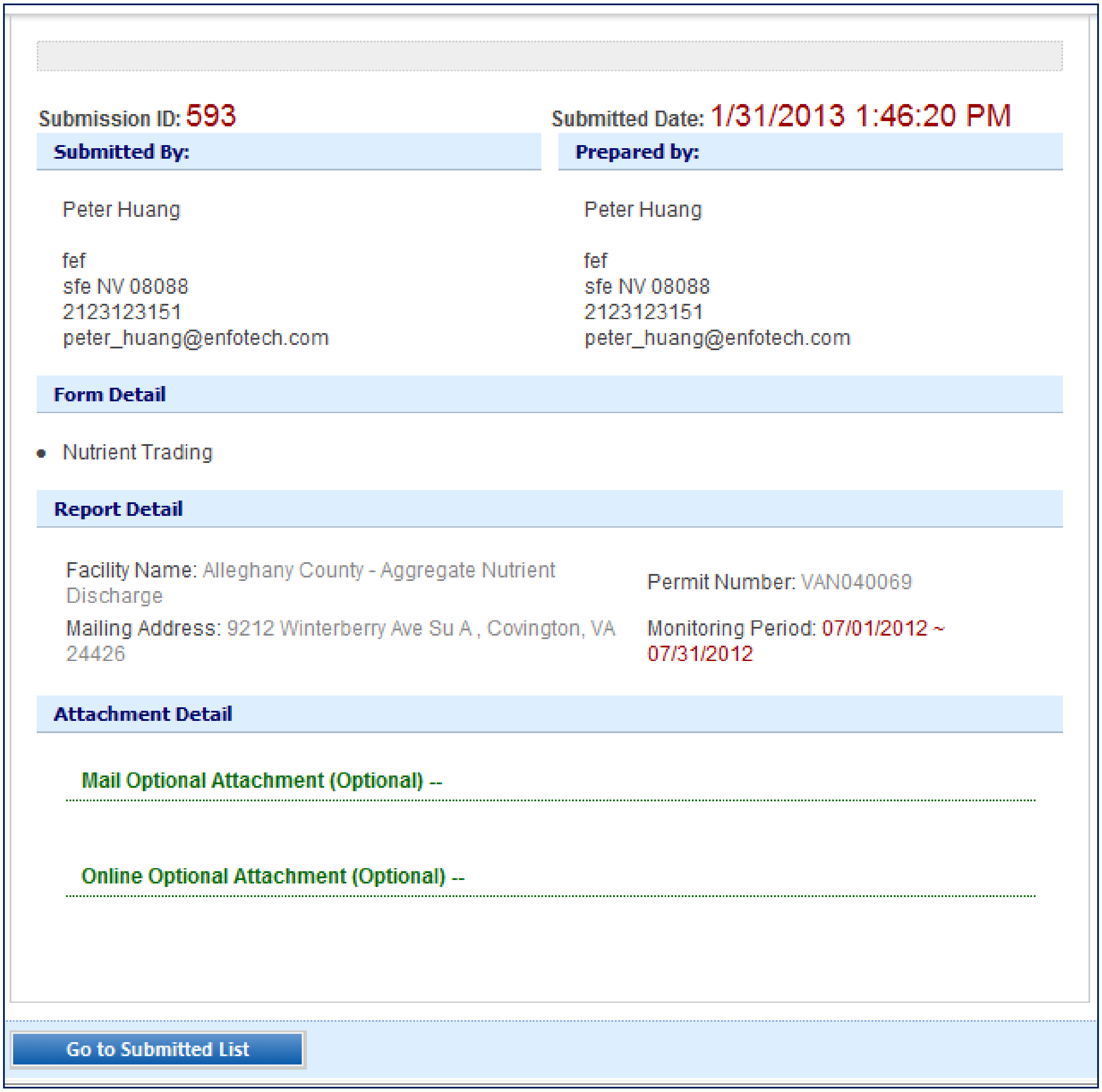
1 - 8 of 8 item(s)

	Delete	Edit	View Form	Report ID	Req. ID	Permit Number	Facility Name	Report Frequency	Permit Type	Form Type	Monitoring Period	Status	Due Date
				257	6639	VAR050089	General Shale Products - Plant 6 and 28	Annually	SWI GP	Benchmark	01/01/2012 ~ 12/31/2012	Open	01/10/2013
				255	7043	VAN010057	FWSA - Aggregate Nutrient Discharge	Monthly	NT GP	NT GP DMR	03/01/2012 ~ 03/31/2012	Open	06/10/2012
				272	6643	VAR050384	USA Waste of Virginia Landfills - Bethel	Annually	SWI GP	Benchmark	01/01/2012 ~ 12/31/2012	Open	01/10/2013
				263	6724	VAR051245	KIK Virginia Incorporated	Annually	SWI GP	Benchmark	01/01/2012 ~ 12/31/2012	Open	01/10/2013
				269	7134	VA0006220	Emporia WTP	Monthly	IP	IP DMR	04/01/2012 ~ 04/30/2012	Open	05/10/2012
				259	6929	VAN050003	Riverside Shore Memorial Hospital	Monthly	NT GP	NT GP DMR	04/01/2012 ~ 04/30/2012	Open	05/10/2012
				261	6796	VAR050179	CEI - Roanoke	Annually	SWI GP	Benchmark	01/01/2012 ~ 12/31/2012	Open	01/10/2013
				271	6986	VAN040142	Appomattox Bio Energy LLC	Monthly	NT GP	NT GP DMR	04/01/2012 ~ 04/30/2012	Open	05/10/2012

Delete

3.6 Processing and Notification of Submissions

Each time a DMR is submitted, the user will be taken to a printable submission receipt page that summarizes the report submitter, owner, form, and attachment details. Here, the user will also have the option of clicking **Go to Submitted List** to be taken directly to the Submitted Report(s) section of the Report Management module.


Submission ID: 593 Submitted Date: 1/31/2013 1:46:20 PM

Submitted By:

Peter Huang

fef
sfe NV 08088
2123123151
peter_huang@enfotech.com

Prepared by:

Peter Huang

fef
sfe NV 08088
2123123151
peter_huang@enfotech.com

Form Detail

- Nutrient Trading

Report Detail

Facility Name: Alleghany County - Aggregate Nutrient Discharge

Permit Number: VAN040069

Mailing Address: 9212 Winterberry Ave Su A , Covington, VA 24426

Monitoring Period: 07/01/2012 ~ 07/31/2012

Attachment Detail

Mail Optional Attachment (Optional) --

Online Optional Attachment (Optional) --

Go to Submitted List

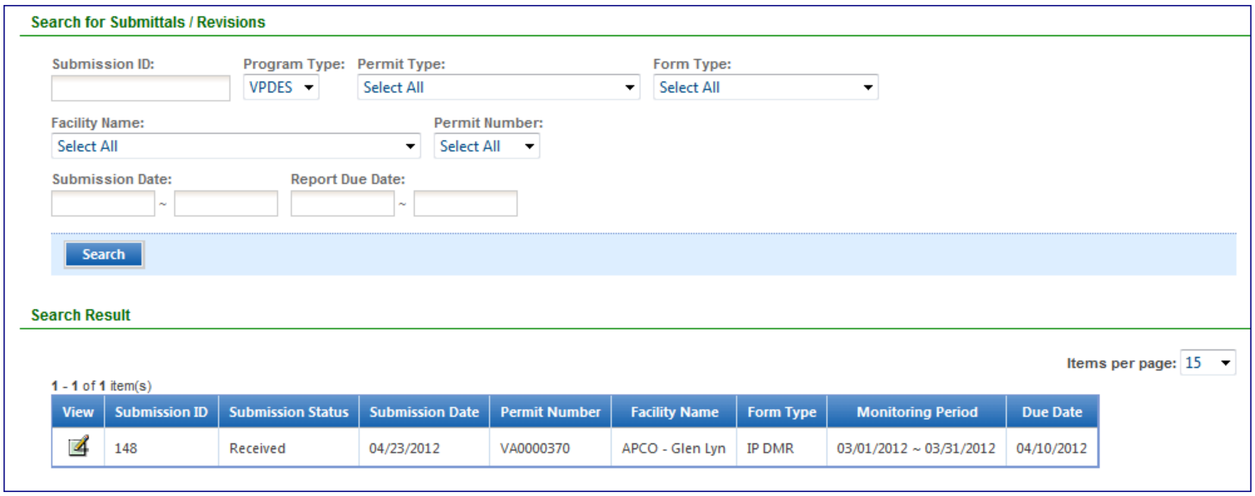
In addition, a confirmation will be sent via e-mail, along with follow-up messages indicating the processing status of the submission.

It is strongly recommended that, if the user is submitting using the Excel or XML submission option, template DMR Excel or XML files be downloaded from e-DMR System only, since the application has been designed to map the correct data from the agency database to the corresponding data element. If the system is expecting a value in a particular data element, it may not be able to correctly display the XML using a non eDMR system style sheet, or the file may not validate. The best way to ensure that a submission will be accurate and uploaded correctly to the e-DMR Server is by utilizing the web form and then stepping through the e-DMR Wizard for submission.

3.7 Viewing and/or Revising Past Submissions

3.7.1 Viewing Past Submissions

After a report has been submitted to the e-DMR server, it is accessible for viewing at any time. To view a DMR submission, click on the Submitted Report(s) icon Submitted Report(s) in the Report Management module. This will open the following screen, which displays by default all submissions made for facilities with which the user has been associated:



To filter the list of DMR submissions, the user may specify a permit type, form type (for SWI permit types only), facility name, permit number, submission date, and report due date.

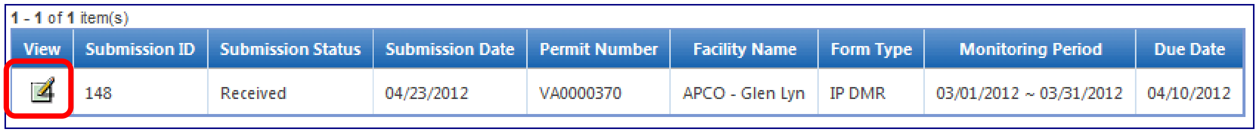
The user may enter date search criteria by either typing in the date in MM/DD/YYYY format, or by selecting a date on the calendar that pops up when the text field is clicked. Using the Calendar pop-up ensures that the date format is correct to query the e-DMR database for submissions.

Once the filters are set, click on the "Search" button, which will display a listing of all past submissions that meet the search criteria.

The user can use this screen to monitor the current status of the submission. For example, when the DMR is first submitted, its status will be "Received," but after the DEQ has validated the submission, its status will change to either "Exchanged" or "Rejected by Program Staff". The following table explains all possible submission statuses:

Status	Description
Received	New Submission is received
Exchanged	Submission is exchanged to state system
RevReceived	Revision is received

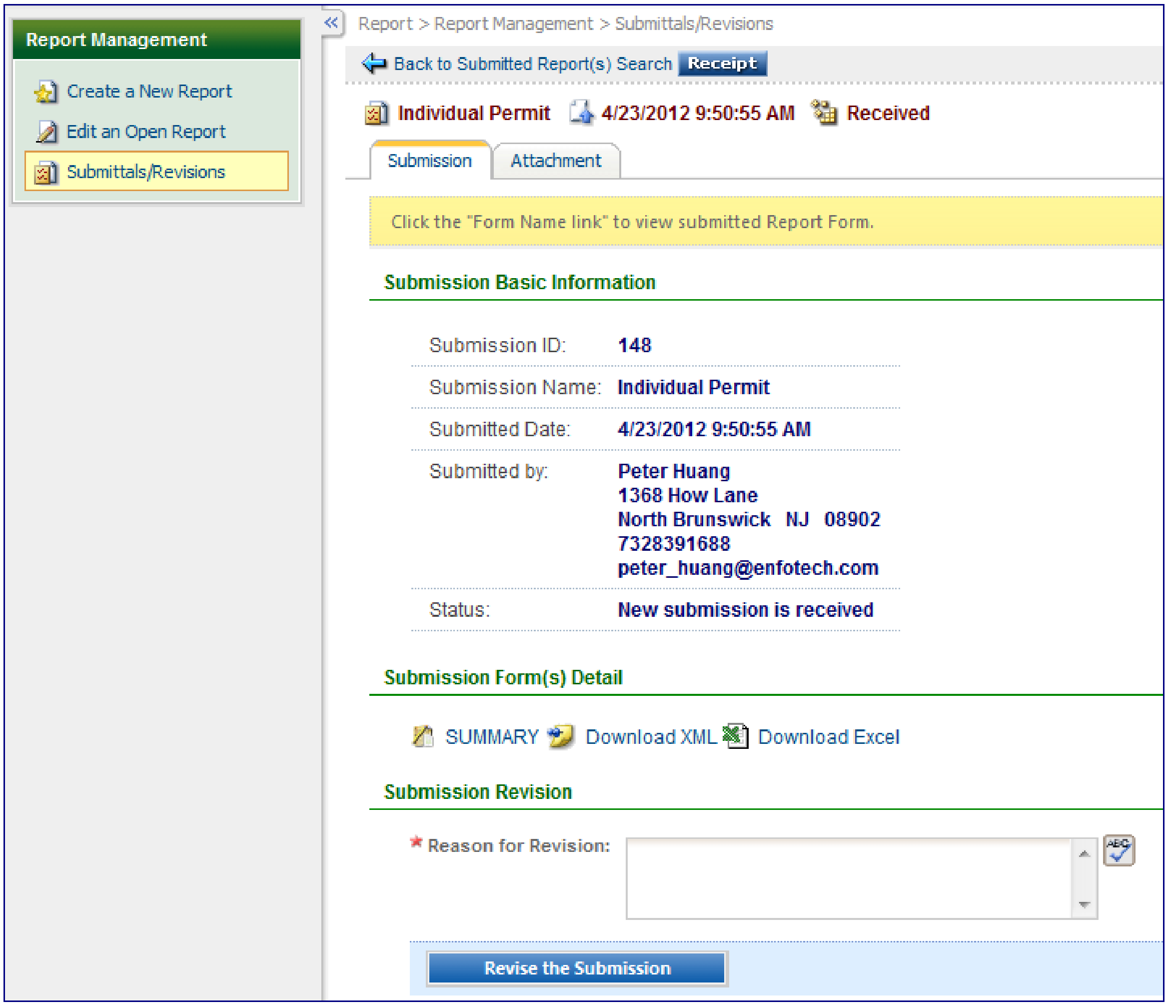
RevApproved	Revision is reviewed and approved by program staff
RevRejected	Revision is rejected by program staff
Revision	Submission is currently under revision
PassDue	Submission Received but past due date


1 - 1 of 1 item(s)

View	Submission ID	Submission Status	Submission Date	Permit Number	Facility Name	Form Type	Monitoring Period	Due Date
	148	Received	04/23/2012	VA0000370	APCO - Glen Lyn	IP DMR	03/01/2012 ~ 03/31/2012	04/10/2012

To select a report for viewing, go to the desired DMR submission and click on the Detail icon . This will bring the user to the following report submission summary, which offers two different tabs: "Submission" and "Attachment".

Note: this specific example corresponds to a VPDES-IP Individual Permit Report Submission. However, this page, for the most part, is a universal format for other permit types. Hence, when users access submissions for other permit types (ie. SWI and NT), the general layout remains identical.



3.7.1.1 Submission

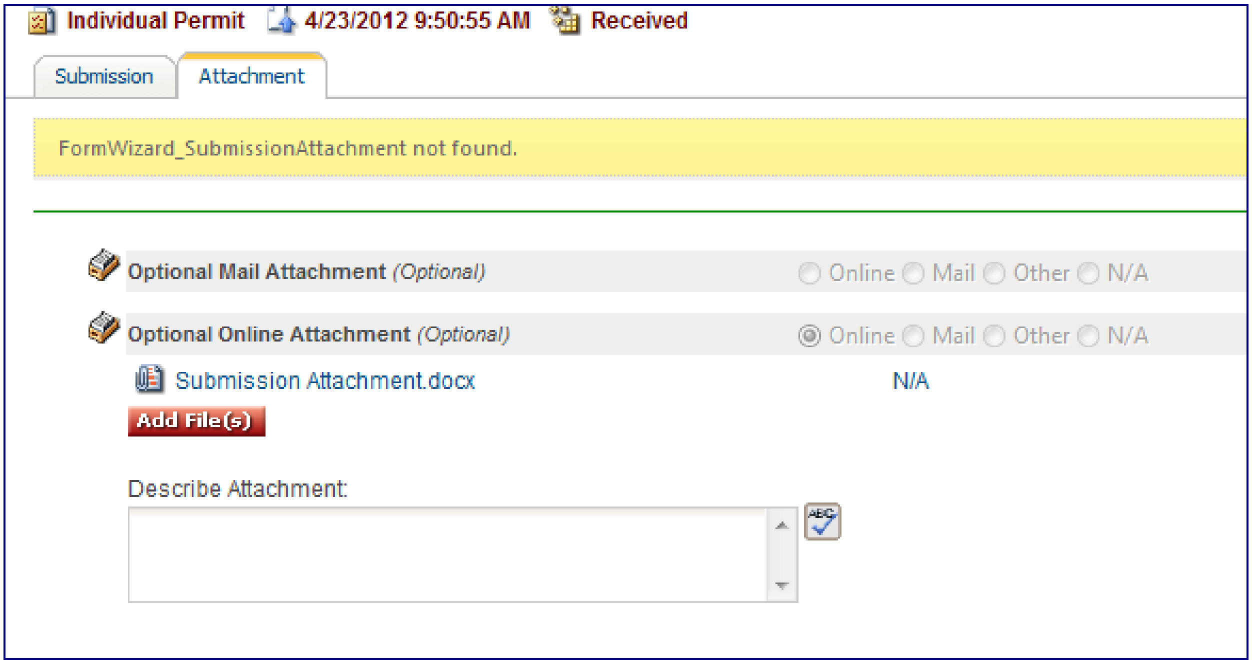
On the default tab, "Submission," the report's submission ID number, name, date, and status are displayed, as well as the certifier's name and contact information.

Under the Submission Form(s) Detail section, the user may click on any of the links for SUMMARY, Download XML, or Download Excel to view or save a copy of the DMR in paper form, XML, or Excel format, respectively. The form at this point is considered a completed discharge monitoring report, since the permit limits and parameters are listed with their corresponding actual measured values.

If the report needs to be revised for any reason, then this reason should be entered under the Submission Revision section and the user must click the Revise the application button. For more detailed information on revising reports, please see section 3.7.2.

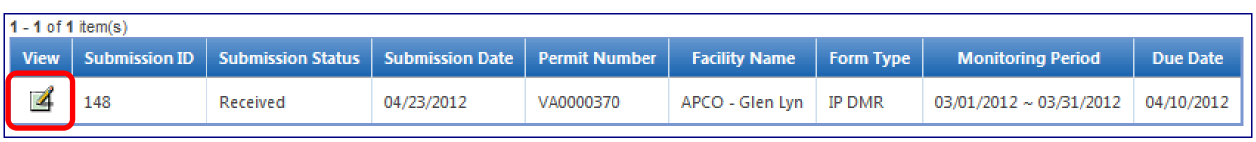
3.7.1.2 Attachment

The "Attachment" tab displays a list of all files attached to the report, and also gives the user the option of adding more. Users can also open the attachment by clicking on the file name of the attachment.



3.7.2 Making DMR Revisions

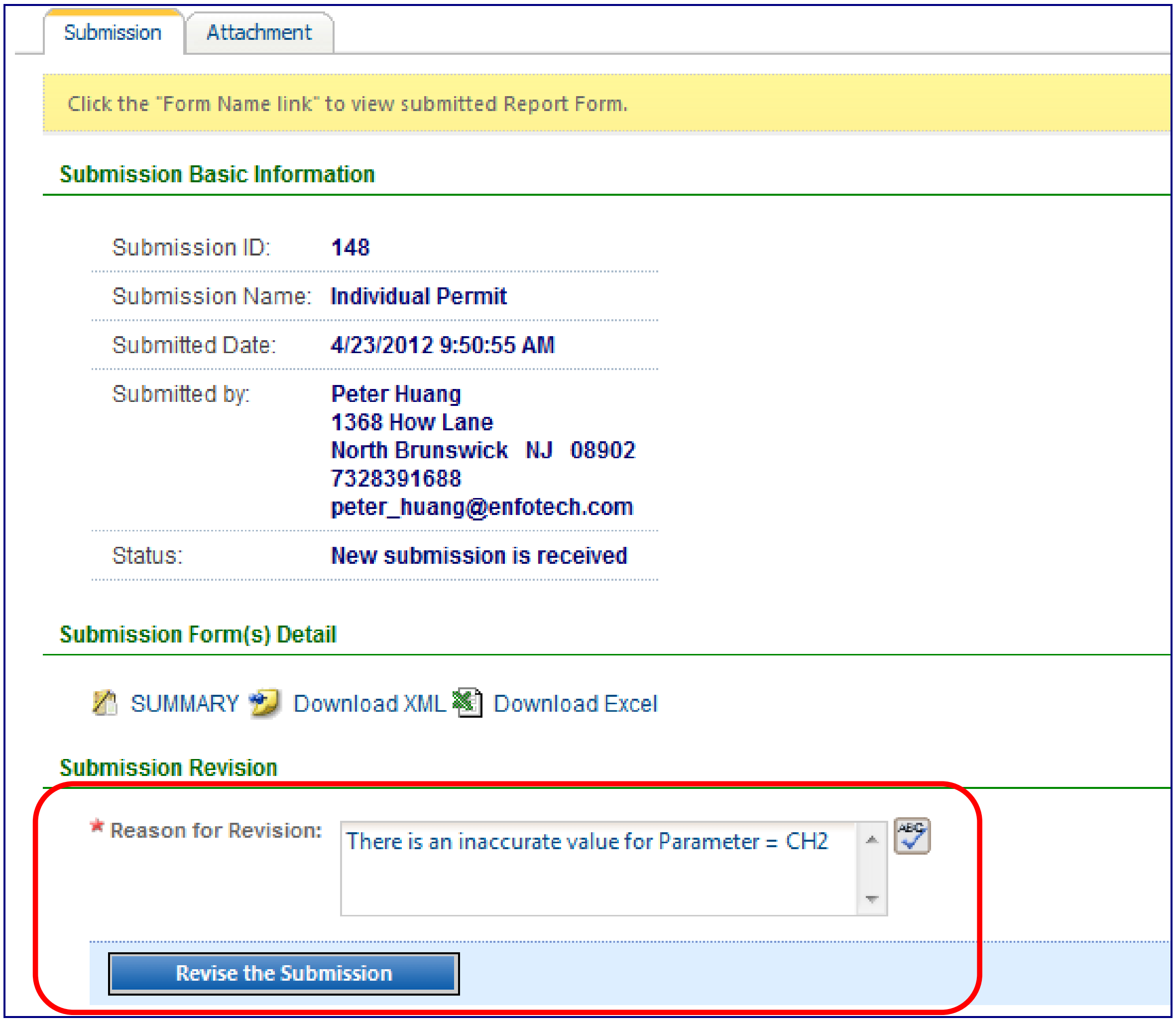
After an e-DMR is submitted to DEQ, the facility can use the E2 system to make revisions to the DMR and resubmit. However, when a revision is made, the user must supply a reason for making the revision. Users can start to make revisions by navigating to the summary details page for particular submissions.



1 - 1 of 1 item(s)

View	Submission ID	Submission Status	Submission Date	Permit Number	Facility Name	Form Type	Monitoring Period	Due Date
	148	Received	04/23/2012	VA0000370	APCO - Glen Lyn	IP DMR	03/01/2012 ~ 03/31/2012	04/10/2012

Then, users must enter a reason for revision under the default "Submission" page, and click the **Revise the application** button.



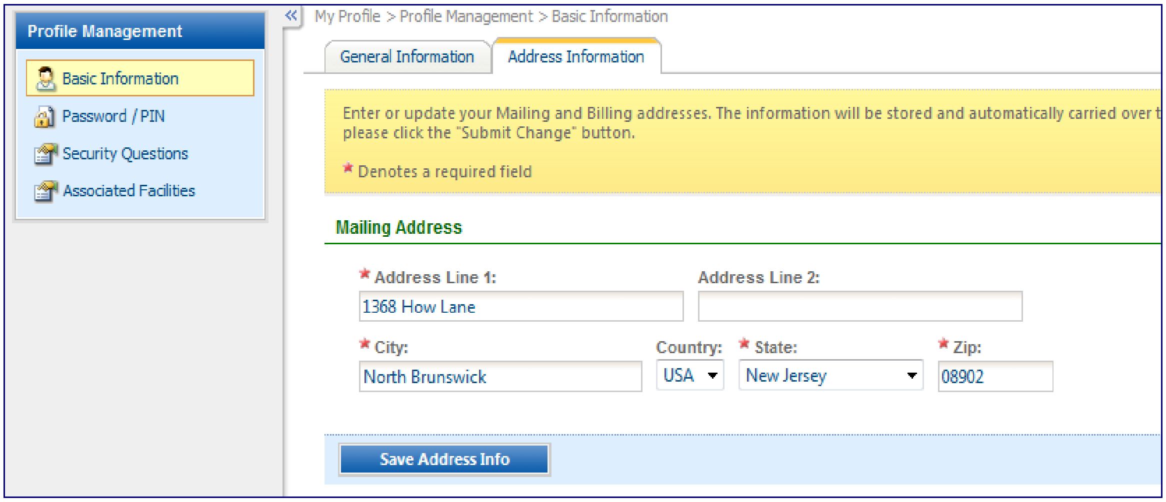
Once the button is clicked, users will be taken to the same data entry page seen when new reports are created. However, this time around, the previous submitted values will be prepopulated in the text fields for the user's convenience. For more detail on filling in a report, please go back to Section 3.

4. Profile Management Module

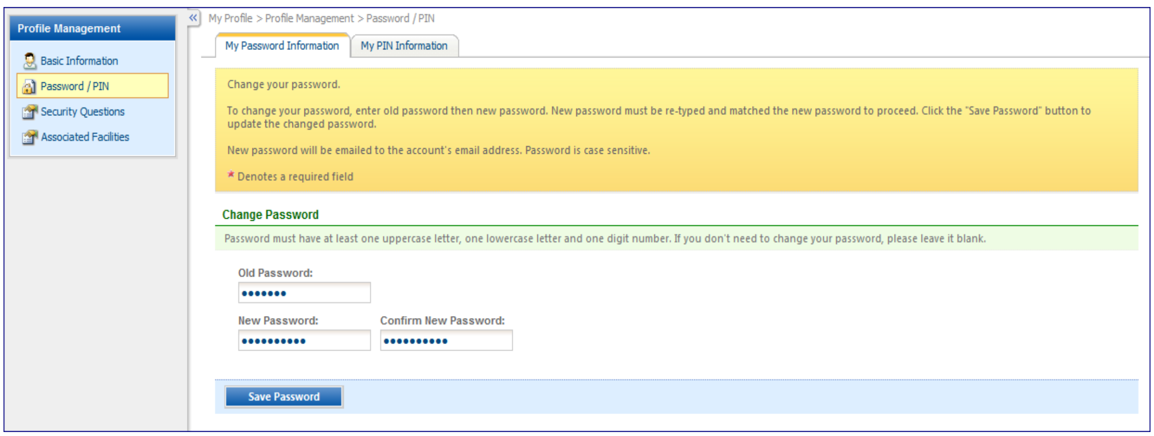
Clicking on any of the four links discussed below will take the user to the same Profile Management screen as clicking on the "My Profile" tab on the header menu bar:

- **Basic Information**: This section of the Profile Management module displays the user's general account information such as name, phone number, and mailing address. The user can change his/her information by entering new information in the existing fields and pressing the "Save Profile Info" button.

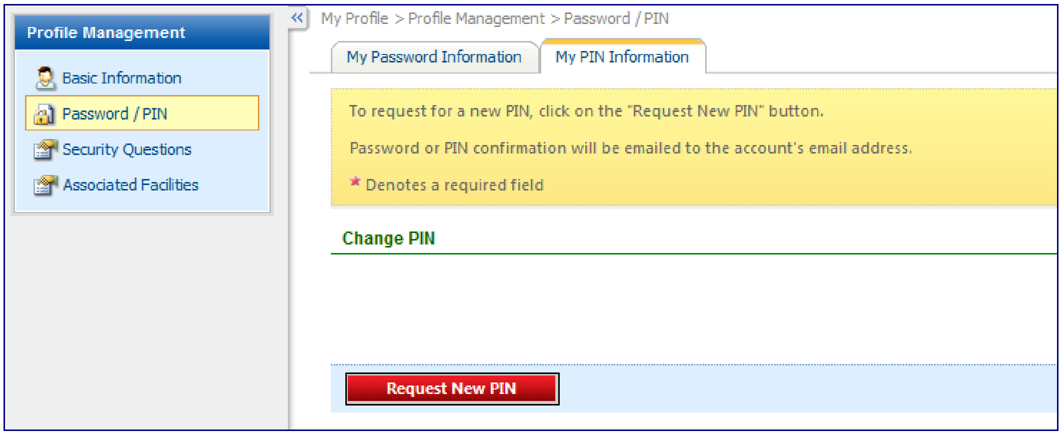
  The user can also view and change address information by clicking the "Address Information" tab. To ensure system security, a confirmation e-mail will be sent when user information has been changed.



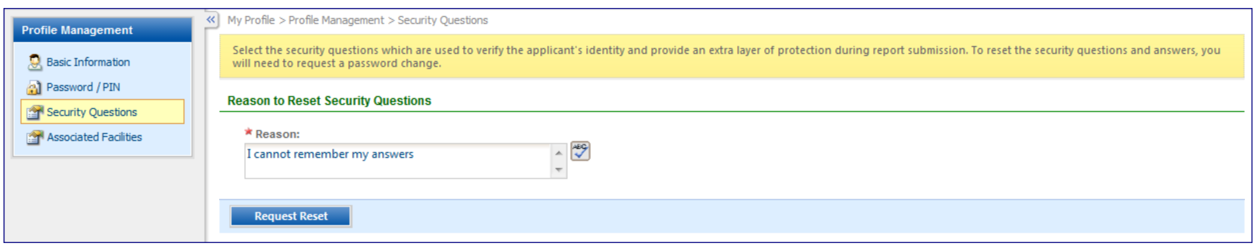
- **Password**: This is the section of the Profile Management module where users may change their passwords. Again, the new user-defined password must consist of 8-15 alphanumeric characters (i.e. A-Z, a-z, and 0-9). The new password will also be sent tothe email address on file.



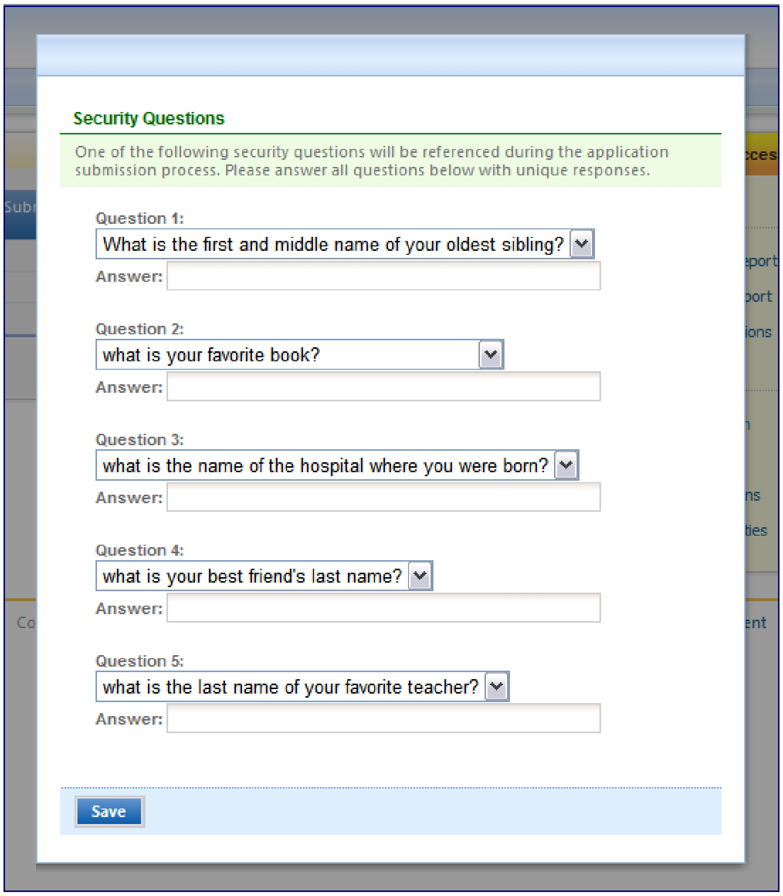
Users can also request a change of PINby navigating to the "My PIN Information" tab. Here, users can click the **Request New PIN** button to have a new PINsent to him/her.



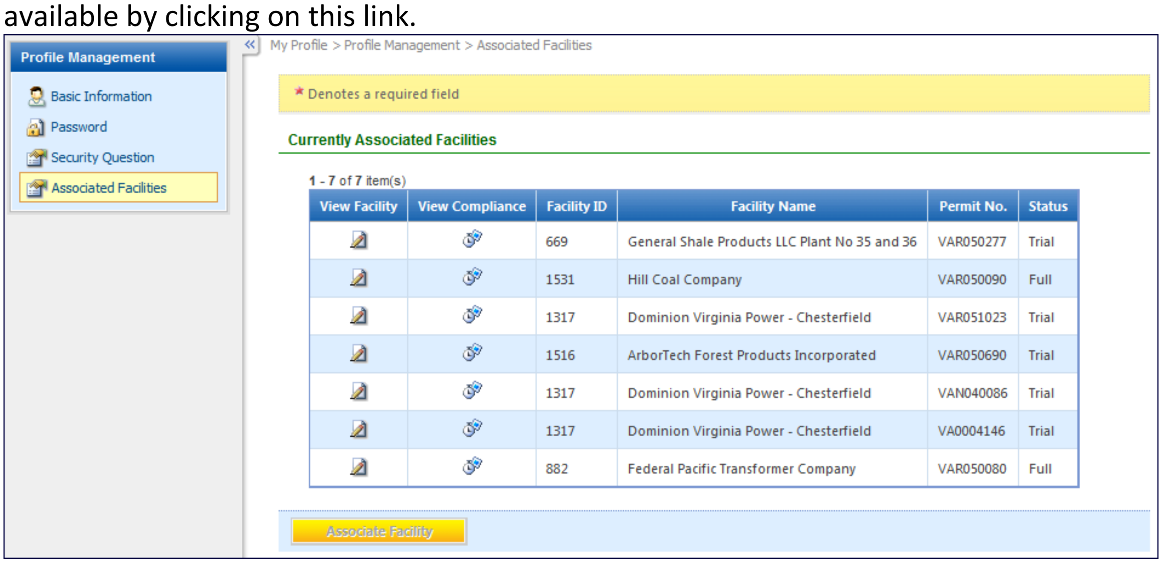
- **Security Question**: Users holding a "Certifier" role may ask to reset his/her security questions here by inputting a reason and clicking Request Reset. The administrator will then be notified of this request and can choose to accept or deny this request. Upon acceptance of this request, the user will be able to choose new security question when he/she logs in. For security purposes, notification e-mails will be sent to both the Certifier and the DEQ e-DMR administrator.



The following screen allows the user to answer the security questions by selecting questions from each question group, typing the answer in the text box and clicking "Save" to save the answers:



- **Associated Facilities**: Facility information functions, such as viewing the facilities that the user is associated with and additional reporting requirements for those facilities, are available by clicking on this link.

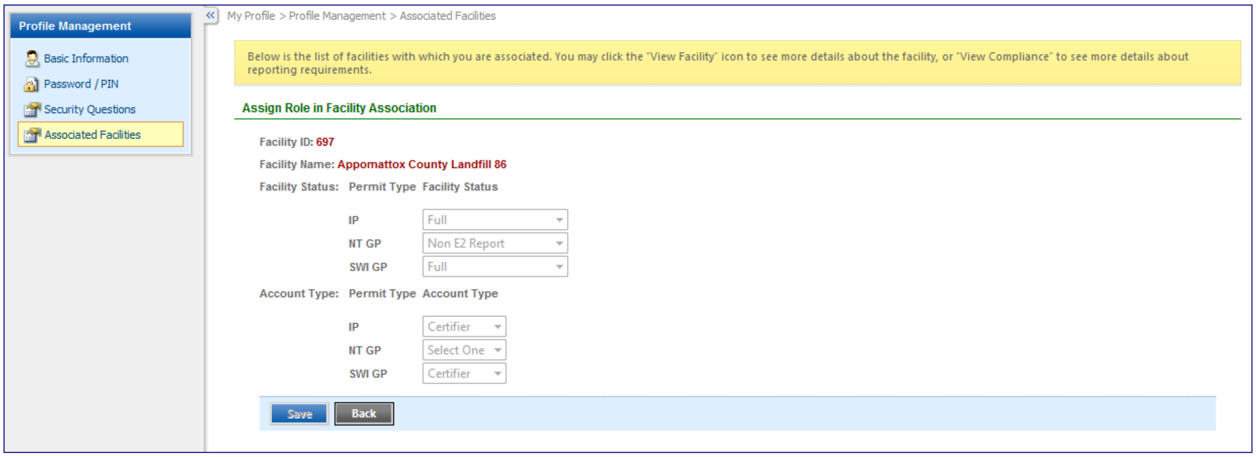


View Facility	View Compliance	Facility ID	Facility Name	Permit No.	Status
		669	General Shale Products LLC Plant No 35 and 36	VAR050277	Trial
		1531	Hill Coal Company	VAR050090	Full
		1317	Dominion Virginia Power - Chesterfield	VAR051023	Trial
		1516	ArborTech Forest Products Incorporated	VAR050690	Trial
		1317	Dominion Virginia Power - Chesterfield	VAN040086	Trial
		1317	Dominion Virginia Power - Chesterfield	VA0004146	Trial
		882	Federal Pacific Transformer Company	VAR050080	Full

In order for a user to be able to submit DMR reports, the user must be associated with at least one facility. This is accomplished by submitting a Facility Participation Package to DEQ. The ***Facility Participation Package*** is available at the following site: [ENTER DEQ

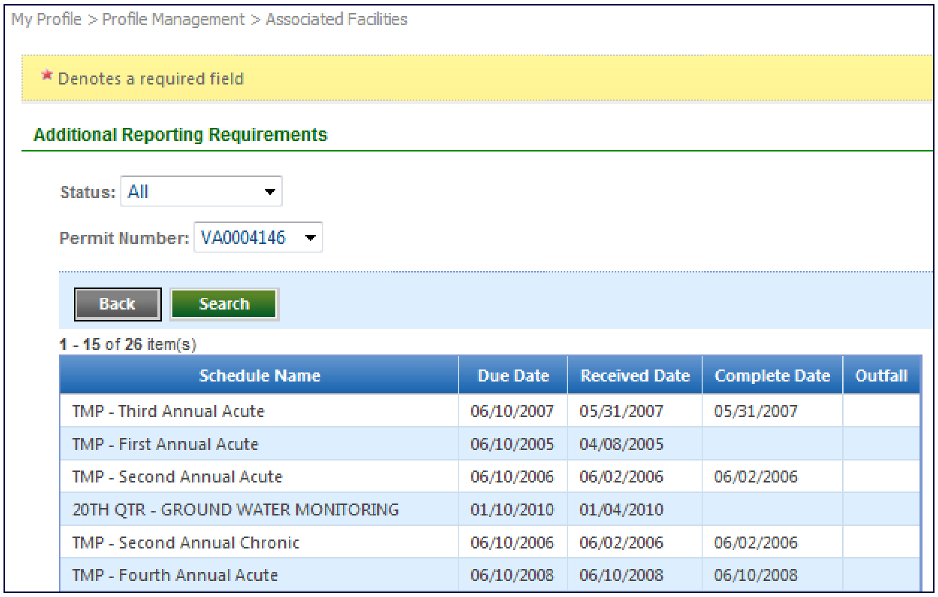
Website LINK] Or you may contact the appropriate DEQ Regional Office to obtain this Facility Participation Package. Once DEQ receives and approves the application, the user accounts will be created and the users will be associated with the appropriate facility. The e-DMR System allows users to be associated with multiple facilities, each of which will be listed here.

To obtain further information about a facility, click on the "View Facility" icon , which takes the user to the Assign Role in Facility Association screen shown below:



This screen is read-only for facility users and displays general information about the facility, such as its mailing address and current e-DMR reporting status. If the facility can no longer submit DMRs electronically to the DEQ, its status will be displayed as either "Inactive" or "Suspended".

The user can also view the facility's compliance schedule by clicking the "View Compliance" icon from the Associated Facilities screen, which takes the user to the Additional Reporting Requirements screen shown below:



Schedule Name	Due Date	Received Date	Complete Date	Outfall
TMP - Third Annual Acute	06/10/2007	05/31/2007	05/31/2007	
TMP - First Annual Acute	06/10/2005	04/08/2005		
TMP - Second Annual Acute	06/10/2006	06/02/2006	06/02/2006	
20TH QTR - GROUND WATER MONITORING	01/10/2010	01/04/2010		
TMP - Second Annual Chronic	06/10/2006	06/02/2006	06/02/2006	
TMP - Fourth Annual Acute	06/10/2008	06/10/2008	06/10/2008	

This screen will display all additional reporting requirements that the facility may face as a result of a compliance schedule, which can be filtered by "Completed" or "Not Completed" status in the drop-down menu at the top. Again, users can filter the search criteria by status and permit number. **Note: These reporting requirements must NOT be placed as 'attachments' to the eDMR as they are standalone requirements and NOT associated with the DMR.**

Disclaimer: *The compliance schedule information listed on this screen is intended as a helpful tool for tracking and implementation of the permit requirements, but it is not a substitute for the actual permit requirements. The facility responsible official is responsible for reviewing the permit and ensuring all requirements are met.*

To return to the Facility Information screen, click on the  button, or click on the Associated Facilities link in the functional area to the left.

5 Glossary

Acronym/ Terminology	Description
DMR	Discharge Monitoring Report
e-DMR	Electronic Discharge Monitoring Report
e-DMR Schema	The electronic Discharge Monitoring Reporting schema file(s) that provides validation rules for interpreting the e-DMR data files written in the XML format. It is used as a guideline for the permitted facility to prepare electronic DMR data files in the compatible XML file format to the appropriate agency.
Report Wizard	A process that begins after a user clicks on Generate Submission File on an online web entry form. This wizard is used to guide the user through certifying and submitting a generated submission file. Also, the wizard can be used to save the file locally.
Style Sheet	A style sheet is an XML file that contains language, linking and style. The main purpose of the style sheet is: (1) to display the XML data files in a user-friendly report format, and (2) to transform the data from one XML format to another format (for data conversion or loading to other database systems). In the e-DMR System a style sheet is used to transform XML data into a readable format. A style sheet that is applied to a template file will look like a blank DMR paper form, while a style sheet that is applied to a submission file will appear as a completed DMR paper form.
Submission DMR File	XML file, or instance document of the e-DMR schema with actual data, reporting requirements, and certification information. This XML will be submitted to the regulatory agency.
Template DMR File	XML file or instance document of the e-DMR schema that includes reporting requirements, permit limits, and facility information data. This file may be used to fill in actual measured data and is analogous to a blank DMR paper form.
Virginia DEQ	Commonwealth of Virginia Department of Environmental Quality
XML File / Instance Document	An XML file is an instance of the schema definition file. It will be prepared by the permitted facility to provide actual monitoring data for submission to the regulatory agency. The permitted facilities could either develop a data export program to automatically export the DMR data from their databases to the XML file format compatible with the schema definition, or enter the DMR data through a web-form provided by the regulatory agency.

Acronym/ Terminology	Description
XML Schema	An XML is a document that is used to standardize a set of mark-up tag names in a particular order. This definition includes what data elements are expected, the acceptable values for the data element, etc. Taken as a whole, the schema is a definition file that provides a mechanism for both human and computer interpretation of information contained in a document.

6 Appendix A: Troubleshooting Guide

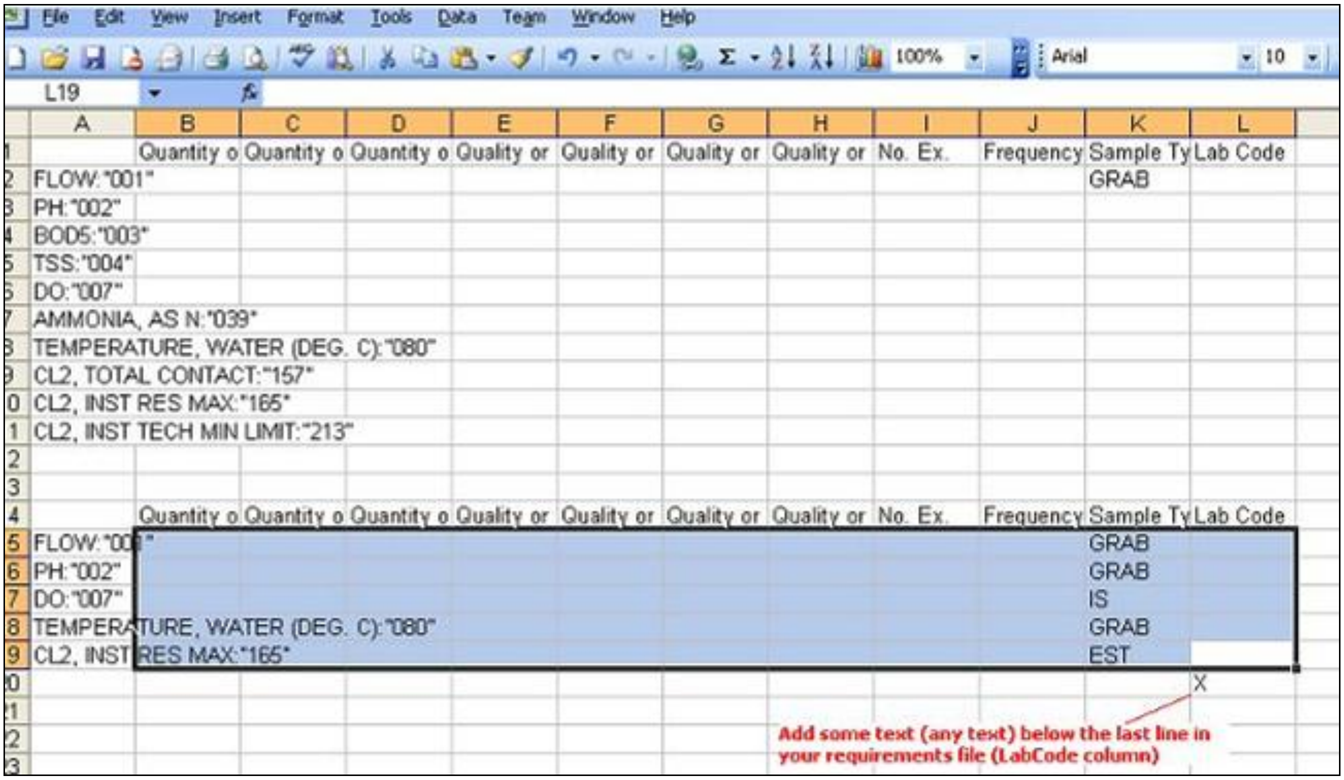
6.1 Issue: Attempting to Perform Copy-Paste from Excel into DMR, Results in Some Sample Types Not Pasting Properly

Symptom: When performing a paste operation from Excel into the DMR webform, but some Sample Types are not pasting into the cells even though they appear correctly in Excel System will not let you continue.

Scope: This issue is most likely limited to situations involving multiple-outfall DMRs in which the facility is not providing Lab Codes.

Cause: This is caused by a bug in Excel in being able to correctly interpret certain CSV (Comma Separated Variable) files. When using Excel to edit the DMR file, if values are not supplied in the last cell of the last row, Excel will sometimes remove those columns entirely. Therefore in cases where the Lab Code (which is the last column) is not being filled in, Excel removes the lab code column from the CSV file, which creates problems when trying to read the previous column (Sample Type).

Resolution: To avoid this issue, the Data Submitter can add an "X" (or any other character) to the Lab Code column in the row following the last row in the DMR template, as shown here. By making this change, this issue should be resolved.


File Edit View Insert Format Tools Data Team Window Help
L19
Quantity o Quantity o Quantity o Quality or Quality or Quality or Quality or No. Ex. Frequency Sample Ty Lab Code
FLOW:"001"
GRAB
PH:"002"
BOD5:"003"
TSS:"004"
DO:"007"
AMMONIA, AS N:"039"
TEMPERATURE, WATER (DEG. C):"080"
CL2, TOTAL CONTACT:"157"
CL2, INST RES MAX:"165"
CL2, INST TECH MIN LIMIT:"213"
PH:"002"
GRAB
DO:"007"
IS
TEMPERATURE, WATER (DEG. C):"080"
GRAB
CL2, INST RES MAX:"165"
EST
X
Add some text (any text) below the last line in your requirements file (LabCode column)